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TITLE OF THESIS     SELF-CONCEPT AND A CAREER EXPLORATION .....

                       PROJECT .....

                       .....

DEGREE FOR WHICH THESIS WAS PRESENTED     M. ED. ....

YEAR THIS DEGREE GRANTED     1977 .....

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SELF-CONCEPT  
AND  
A CAREER EXPLORATION PROJECT

by



KENNETH W. McMILLAN

A THESIS  
SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH  
IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE  
OF MASTER OF EDUCATION

DEPARTMENT OF EDUCATIONAL PSYCHOLOGY  
EDMONTON, ALBERTA  
FALL, 1977





## THE UNIVERSITY OF ALBERTA

## FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled "Self-Concept and a Career Exploration Project" submitted by Kenneth W. McMillan in partial fulfilment of the requirements for the degree of Master of Education.





## ABSTRACT

According to Super, people manifest their self-concepts in choosing a career. The purpose of this study was to determine if there was a self-concept change when grade ten students took part in a vocational counselling project, the Career Exploration Project.

Two groups of 45 subjects were randomly selected from the grade ten class lists in Red Deer County's five high-schools. Thirty-nine students of one of the groups formed the treatment group. Thirty-seven students from the other group volunteered to act as a control group. Both groups were administered the Tennessee Self Concept Scale at the beginning and the conclusion of the project. A pre-post questionnaire designed to ascertain the students' concepts of themselves, including vocational maturity, was administered to the experimental group.

Three-way analyses of variance were employed to test for significant differences on each of the nine selected scores of the TSCS: the total positive self-concept measure along with identity, judging, behavior, moral-ethical, personal, family, and social selves. Pre-post differences were analyzed for these main effects: group (experimental,



control), sex, and level (high, medium, low by pretest). Relative percentage differences on the pre-post questionnaire were viewed to determine if there were changes within the experimental group in attitude, educational plans, occupational plans, and orientation to school. The Career Maturity Inventory (attitude scale) was statistically analyzed by the t-test to determine if there was within treatment group change.

Data analysis indicated there was a total positive self-concept change when considering the total group. Likewise, the internal measures showed significant increases in identity self, judging self, personal self, and social self.

A two-way analysis of variance indicated a significant increase to be with females only. As well, the males reflected no change in their internal self measures, whereas, the females showed changes in judging self, behavior self, physical self, personal self, and social self.

No significant change was noted in a within treatment group t-test for the Career Maturity Inventory (attitude scale). Other questions asked in the pre-post questionnaire for within treatment group, reflected increased confidence and aspirations as well as good acceptance of the project.





## ACKNOWLEDGEMENTS

This project and accompanying research would not have been possible without the encouragement and support of the following:

Dr. George Fitzsimmons, Department of Educational Psychology, University of Alberta.

Dr. Gerry Sankey, Department of Educational Psychology, University of Saskatchewan.

Dr. R. Ousta, Superintendent of Schools, Red Deer County No. 23.

Mr. Roy Cope, Assistant Superintendent, Red Deer County No. 23.

Mr. Nicholas Hallowach, Principal, Bowden School.

Mr. Oliver Nelson, Former Principal, Spruceview School.

Mr. Ray Reckseidler, Former Principal, Delburne School.

Mr. R. (Bob) Swabey, Principal, Sylvan Lake School.

Mr. B. (Ted) Webster, Principal, Innisfail School.

Staff and students of the high schools in Red Deer County.

Red Deer County School Committee, who financed the project as a part of the guidance programs.

Mrs. Barbara Cope, Mr. Ken Fulton, Mr. George (Jake)



Jacobs, Mr. Dave Meurin, Mr. Jorge Pizarro, and Mr. Roger Ward, counsellors involved in the project.

Miss Ruth Weber and Mrs. Debbie Walker, stenographers, Red Deer County No. 23, who provided much assistance.

And, most importantly, my wife Bonnie, who tended the home and the children through the summers, evening classes, and residency, during which this thesis evolved.





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## CHAPTER I

### INTRODUCTION

#### Introductory Comments

This thesis grew from an idea given in a presentation by Dr. Gerry Sankey, University of Saskatchewan, at the Canadian Guidance and Counselling Association Conference, Vancouver, June, 1975. His proposal was that vocational counselling, if executed according to the model presented in his Career Exploration Project (C.E.P.) would have the potential to increase self-concept. He had already demonstrated C.E.P. would increase vocational maturity (Sankey, 1974).

It became apparent that the C.E.P. would meet some of the needs of the County of Red Deer No. 23 in which the author is employed. At that time vocational counselling was provided in a traditional sense. Guidance offices in the five high schools were well stocked with technical school, college, and university calendars, guidance center monographs, and Calgary School Board career information. Some schools administered Kuder Interest Tests (Kuder, 1960) and the Differential Aptitude Tests (Bennet, 1973) at the grade nine level. Other schools administered nothing. Vocational counselling was unsystematic and only offered if a student in need met a counsellor who had time. The occasion was right for a more methodical approach, updated into the





computer age. The C.E.P. appeared to fulfill these needs.

The total package also appeared to enter a need area of self-exploration within existing guidance programs. Developing an Understanding of Self and Others (DUSO) (Dinkmeyer, 1970) had been introduced at the elementary levels. In this rural area it was felt that family life programs which seemed the next logical step in self-exploration programs would be more difficult to implement due to the requirement of parental permission, school committee agreement, and ministerial approval. The C.E.P. then, seemed a less troublesome route, which might also be more publically accepted, yet still offer self-exploration.

The C.E.P. also gave an opportunity to provide inservice training for inexperienced and/or untrained counsellors in both personal and vocational counselling skills. Through a unique counselling process, the C.E.P. provides a learning experience for such counsellors. Various inventories and computer printouts which otherwise would not be used could be introduced to such counsellors.

This project could serve as a followup activity for a career fair which was offered the previous year. As well, it would broaden the caseload of the counsellors from strictly individual counselling to gaining experience in



some group counselling skills. Relatively non-verbal students, who otherwise would not enter a counselling office, could be served by a counsellor. Lastly, since much counsellor time is spent in helping others, but not really knowing if one has aided the student, the C.E.P. offered a well defined process in which the counsellor and the student could feel a sense of satisfaction upon completion.

The Career Exploration Project, then, appeared to be able to meet some of the needs of the Red Deer County School system in which the author is employed. As such, the project was conceived in the spring of 1975. The research component of that project is reported in this thesis.

### Organization

The following is the organization of this thesis. The introductory chapter devotes itself to a presentation of the problem, the theoretical orientation, and a description of the Career Exploration Project. The next chapter deals with research pertinent to the present study. Chapter III states the procedures used to investigate the questions presented. Chapter IV reviews the statistical analysis of the investigation. The final chapter includes an analysis, interpretation, implications for education, and a summary of the results.



### Nature of the Problem

This study is concerned with self-concept change of adolescents involved in a career development program.

How students value and see themselves and the self-concept they possess have important implications for every aspect of their behavior, performance, and adjustment. The value of a career development program would be increased if students achieved a positive change in self-concept with its implications of behavior, performance, and adjustment.

### Definition of Terms

Self-Concept. Self-concept is defined as the matrix of a person's attitudes about himself generated by the dynamic interaction of the physical self, moral-ethical self, personal self, family self, and social self within the three divisions: identity self, judging self, and behavior self.

Vocational Self-Concept. The vocational self-concept is defined as the constellation of self attributes considered by the individual to be vocationally relevant, whether or not they have been translated into a vocational preference.

### Antecedents to Self-Concept

The idea of self and self-concept is of both historical





and modern significance. Greek drama illustrated the awareness of the "person" in a deciding, thinking role. Religious writers in the middle ages also acknowledged the inner self in refering to the soul. At the turn of the century, some writers (Freud, 1900; James, 1880) wrote about either the ego or the self.

From these historical roots, Hogan (1976) notes four major concepts of the self. The first is self-awareness to the fact that we exist. The second, the self as an indirect object of knowledge. That is, we learn about ourselves by comparing our "selves" with those around us. Thirdly, the self is a direct object of knowledge wherein we think and analyze ourselves as a person. Lastly, the self is an image that we present, particularly in late adolescence and thereafter as we present a different aspect in each new situation.

The self received little prominence in North America until the late 1930s. Behaviorists like J. B. Watson rejected the idea of self or self-concept because it was something that could not be directly observed. However, an upsurge of self-theory emerged in the 1930s (Adler, Allport, Cattell, Combs & Snygg, Hilgard, Lewin, Mead, Rogers, and others) because behaviorism was unable to account for many



observed psychological phenomenon.

Mead (1934) emphasized socio-psychological rather than strictly biological determinants of personality. Lewin (1935) postulated the uniqueness and coherence of each individual and his own psychological life space. Adler (1935), in the formulation of a humanistic theory of personality, asserted that man is a product of his heredity (abilities) and environment (attitudes). Adler proposed that the attitude a person holds toward life determines his relationship to the outside world.

Allport (1937, 1943, 1955, 1961) argues for a "purposeful, rational man, aware of himself and controlling his future through his aspirations" (Purkey, 1970, p. 5). Hilgard added to this concept in describing the self as something of great value organized around maintaining self-esteem.

Contributing to the concept of a structural self, Cattell (1950) identified two selves, namely, the ideal self (what the person would like to be) and the real self (what the person is like now).

Two other theorists who are credited with the reintroduction of the self into American psychology are Combs and Snygg (1949). They stated, "All behavior is dependent upon



the individual's personal frame of reference . . . of which an individual is aware at an instant of action, his 'phenomenal field'" (p. 5).

One of the most eloquent psychologists reacting to behaviorism was Carl Rogers (1951). He based his conceptions of the self on his client-centered psychotherapy model. The individual, to Rogers, is an organized whole with behavior being a product of one's perception of events. As well, he views the organism as satisfying its needs by maintaining or enhancing itself. Besides this inherent tendency towards self-actualization, Rogers proposed a universally apparent, self-regard need.

This need involves the human requirement to be loved and valued. Significant others, then, have a determining influence on the conceptions a person holds about himself. However, should a disparity develop between reality and the perception of reality, then selective distortion and denial to awareness occurs.. Tension, anxiety, and frustration are the result. On the other hand, when the individual can integrate all these experiences into a consistent system, he becomes more accepting of himself and others.

#### Conceptions Relating to Self-Concept

The self-as-process and the self-as-object is specified





by Hall and Lindzey (1957). The self-as-process is a 'doer' which involves thinking, remembering, and perceiving, thus regulating and controlling behavior. The self-as-object involves attitudes, evaluations, feelings, and perceptions of oneself as an object.

A person's conception of himself influences his behavior. Wylie (1974) states, "self-concept variables . . . are hypothetically assigned behavior roles" (p. 2). Likewise, Fitts (1971) states, "self theory holds that the self-concept is the frame of reference through which the individual interacts with his world. Thus the self-concept is a powerful influence in human behavior" (p. 3).

An internal frame of reference is the best way to view individual behavior. Self-theory acknowledges that human behavior can not be weighed, counted, and measured similar to the physical sciences.

Every human has potentialities. Maslow (1968) states that a person is his 'own project' and thus 'makes himself'. The more optimal a person's development, the more prone he is to "love, courage, creativeness, kindness, and altruism" (p. 193). Maslow, along with Rogers (1951), refers to this development as self-actualization. The more self-actualizing the person, "the more capable one is to realize



true potentialities and function in a more creative manner" (Fitts, 1971, p. 3-4). Self understanding also increases at varying rates with age in adolescence and is related to certain needs (Super, 1963).

Self-concept is socially learned. As Byrne (1974), in summarizing self-theory, states:

Self theory proposes that self concept is developed on the basis of evaluation by others communicated during interpersonal interactions. While the earliest and presumably most general aspects of the self concept develop in interactions between the child and parental figures, continuing changes in self concept should take place as a consequence of later interactions. Thus the reactions of siblings, peers, teachers, colleagues, spouse, offspring, and/or therapist would be expected to influence changes in the self concept. (p. 292)

Incongruity between one's conception of self and reality creates tension. Horney (1937) refers to an overvalued, unrealistic concept called the 'idealized image'. If there is a widening gap between this image and the true self, then neurosis is inevitable. Rogers (1951) states: "If sufficient degree of incongruence exists between self and experience, the occurrence of such experiences may lead to a breakdown of the defences, the extreme arousal of anxiety, and a disorganization of the self-structure" (p. 513).



Sullivan (1956) sees anxiety as being caused by either threat of, or loss of self-esteem.

### Self-Theory and William Fitts

In most recent times, Fitts (1971) has attempted to analyze self-concept, taking into account much of the past and current writings and research. He points out three areas that affect the behavior of the human organism--the organism as object, the organism as actor, and the organism as evaluator.

Each person exists as an object and, like any other object occupies space and has shape, size, weight, and other distinguishing characteristics. As a living organism each person is existing in a constant dynamic state and is in a continuous process of some kind of internal and/or external action. He senses, moves, breathes, eats, metabolizes, sleeps, walks, climbs, lifts, manipulates objects, and otherwise interacts with both his internal and external environments. As a human organism he also thinks, reasons, and uses symbols; works at innumerable tasks, has feelings, beliefs, attitudes, values, and opinions; talks, reads, and communicates with other people; experiences extremes of compassion, concern, and love for others or extreme cruelty, and indifference and hatred.  
(p. 11)

From this premise, Fitts indicates the self is made up of essentially three parts:

The identity self or self-as-object: It is the labels





and symbols used by the individual to describe himself and establish his identity.

The behavioral self or the self-as-doer: It involves the characteristics of the living organisms such as locomotion, incorporation of food, irritability, and continued interaction with the internal and external environment. The behavioral self is observable.

The judging self or the self-as-judge, the self-as-observer, or the self-as-evaluator: This self differs from the Freudian superego in the sense that it is not entirely introjected from the values and standards of others and it is not always aligned with the id. However, this judging self can engage in the pure pleasure of satisfying certain instincts such as aggression, or take pride in resisting a dangerous impulse.

Sarbin (1952) suggested a cluster of other sub-selves that reinforce the external frame of reference for the individual. Examples of these sub-selves are the self as lover, self as dancer, self as drunk, etc. Fitts (1951), using this thinking, selected a unique subset of five selves: the physical self, moral-ethical self, personal self, family self, and social self. The interaction of these subsets between the identity self, the behavioral



self, and the judging self, provides the organization, self-concept.

Fitts and Hammer (1969), after extensive research on the importance of the self-concept, came to the conclusion

that the way an individual views and interacts with the world around him is partly a function of the way he views himself (self concept); that his behavior is a reflection or expression of the self concept; that his self concept is influenced by his behavior, the reactions he gets from his external world, and his own reactions to himself.  
(p. 1)

#### Comments about Self-Concept

Some understanding of self-concept may be attained in determining how one's self-concept develops. Previously cited references have indicated that should a person learn about one's real self, then a subsequent reduction of anxiety will result which in turn will assist in relationships with self and others. Thus self-knowledge, it is suggested, reduces anxiety and tension, and in turn leads to more positive behavioral change. Whatever behaviors are exhibited are then tested against reality to determine if one should maintain that behavior as a part of the self.

The need to love and be loved was also stated as a significant determinant of self-concept development.



Hopkins (1976) suggests that the child who receives affectionate attention from significant others will have a more positive self-concept. Three common sources of a negative self-concept are overprotection, domination, and neglect: overprotection is exemplified by an overly conscientious parent doing too much for the child leading the child to believe that he cannot do things for himself; domination, creating situations where the child feels threatened in new situations; and neglect, reinforcing the idea that others receiving the attention are more important than himself.

On the other hand, a positive self-concept is developed in children by parents who develop in the child an attitude of affection, love, and success. As the child begins to give affection, love, and be successful he will likewise 'feel' affection, love, and success. (See also the discussion of the epigenetic principle in the summary of Erikson, 1968, later in this chapter.)

William Glasser (1969) recommends that teachers in schools be aware of the parental pitfalls leading to negative self-concept development, and provide experiences that elicit a positive self-concept. Thus, a program in schools that provides increased self-knowledge, maximum self-direc-



tion, and at the same time, treats the individual as a significant person, worthy enough for a potential significant other, namely a guidance counsellor, to take the time to establish solid rapport, should be a growth factor for the adolescent in establishing a positive self-concept.

Vocational counselling in schools has the potential of fulfilling this objective. In fact, self-concept, according to Fitts (1972) appears to influence vocational choice.

"The world of work is prominent in the lives of most people and vocational psychologists (Super, 1963; Holland, 1966) have long maintained that the self concept is a significant factor in the choice of a vocation" (p. 62). According to Super (1953), "the process of vocational development is essentially that of developing and implementing a self concept" (p. 190).

The next section of this introductory chapter reviews in more detail the vocational counselling theories proposed by Super.

#### Vocational Development Theory of Donald E. Super

Super (1957, 1963, 1970) places much emphasis on the self-concept in his writings. Individuals are born with certain potentials, according to Super, be they muscular, neural, behavioral, or endocrinal. These tendencies are





exercised by the gratification they bring. Thus a person's self-concept develops as a result of those aspects that he maintains. In other words, the traits and behaviors maintained stand the 'test of reality' and they become part of the 'self'.

Super (1970) describes both a phenomenal and a non-phenomenal part of the self. The former, is the part the individual is aware. The latter are those things that are not evident to the individual such as feelings, motivations, knowledge, and perceptions. Since Super works with his client at the level of the counsellee's awareness, the counselling process deals primarily with the phenomenal part of the self.

At this phenomenological level, then, the individual growing into adolescence becomes more aware of himself and others. He becomes aware of his physical appearance, ability in school, and of his personality characteristics. According to Super, this awareness of the self, or self-concept, is directly reflected in decisions made. Since decision making is involved in making vocational choices, then one can conclude, along with Super, that a person implements his self-concept in a career. Super's theory of vocational development "recognizes the importance of the



formation of self-concepts, of their translation into occupational terms, and of their implementation as one becomes established in an appropriate occupation" (Super & Bohn, 1970, p. 141). He refers to a vocational self-concept, defined early in this introductory chapter.

The vocational self-concept is developed through three processes: identification (e.g. I want to be like him), experience (e.g. a part time job), and observation (e.g. reading). If reality reinforces the conceptions learned through these processes, then the individual adapts this learning as part of his vocational self. Through this process of vocational self-concept development, the individual is influenced in his actions including the determination of "the occupation he prefers, the kind of training he undertakes, and the degree of satisfaction he experiences on the job" (Super & Bohn, 1970, p. 107).

#### Erik Erikson: A Differential Developmental Stage Theorist

Super's vocational theory, as well as emphasizing the self-concept, places emphasis on the developing human. Initial writings borrowed heavily from Buehler (1933), Miller and Form (1951), and Havinghurst (1953) for the developmental perspectives. These were integrated with vocational guidance practices after Ginzberg and associates



challenged vocational counsellors as lacking theory.

In his later writings (Super, 1970) the influence of Erik Erikson, a differential developmental stage theorist, becomes very apparent. This section will concentrate on Erikson's theory as it relates to Super's vocational development theory, self-concept, and the adolescent.

The adolescent, in Erikson's theory, develops somewhere on a continuum between a 'sense of identity versus a sense of identity diffusion'. It is normal for an adolescent to have some confusion in his identity. However, carried to the extreme of identity confusion, a pathological condition would become apparent which may include personal intimacy difficulties, time perspective confusion, lack of industriousness, abhorance for competition, and a negative identity with its conflict with family and community (Mitchell, 1975, p. 19). The other end of the continuum would be the reverse of this extreme.

Instrumental in Erikson's Theory is the epigenetic principle which states that all growth involves a basic plan, and out of this plan parts arise, each having a time of special ascendance, until all parts have developed forming a functioning whole. This is evident in infancy where a baby seems to very rapidly 'unfold'. Accordingly, in





Erikson's eight stages (infancy, early childhood, play age, school age, adolescence, young adult, adulthood, and mature age) this sequential development occurs (Erikson, 1968, p. 92-93).

Before the individual has arrived at the adolescent continuum 'identity versus identity diffusion', a number of other levels have been dealt with at critical times for the child. During infancy the individual has adopted a position somewhere between a sense of trust versus a sense of mistrust; during early childhood, a sense of autonomy versus shame and doubt; during play age, a sense of initiative versus guilt; and during school age, a sense of industry versus a sense of inferiority. Thus the individual has developed a personality, including a concept of self, in a predetermined sequence which can be seen outwardly, by the way he interacts with people.

Super (1970) in adopting many of the principles of Erikson's theory specifically employs the concept of critical periods. Should an individual adjust well in the previous stage, then the next one will be approached differently than if one did not adjust well. Super (1963, 1970), also adopted some of the stages of Erikson's theory and described vocational developmental tasks for specific age groupings.



A summary of these stages is presented in table 1.

TABLE 1

	Life Stage	Age	Vocational Developmental Tasks
Exploratory Stages	Early Adolescence	14-18	Crystalizing a vocational pre- ference.
	Middle Adolescence	18-21	Specifying a voca- tional preference.
	Late Adolescence	21-25	Implementing a vocational pre- ference.
Establishment stages	Young Adulthood	25-30	Stabalizing in a vocation.
	Middle	30-50	Consolidating status and advan- cing in a vocation.

Note. Data obtained from Super, 1963, p. 81.



## Vocational Counselling for Early Adolescents Based on Super's Theory of Vocational Development

The young adolescent, according to Super (1963) is in a stage of 'exploration' wherein he is crystalizing a vocational preference. Thus, he will continue to cognitively formulate ideas about occupational fields, and levels of work. Tentative choices will be based on an understanding of his self. His choices of curriculum will likewise be 'exploratory' in that he will not be certain of either the need or capability in handling specific courses. Even teens who take an apprenticeship often consider that they are not locked into the occupation for a lifetime as they could return to school or change apprenticeships.

In our society there comes a time when the young adolescent becomes aware of the need to crystalize his thinking in regards to a career. The questioning may be instigated by significant others such as school authorities, who require curriculum choices; and parents, who want to be involved in his planning for the future.

In order to come to terms with the young teen's exploration, and his desire to crystalize a preference, schools often provide resources for students. In Alberta, many school programs involve decision making courses at the



grade nine level. Interest tests and aptitude measures are a part of that program. Career monographs are also made available. Guidance counsellors are often available to help the teenager sort out or crystalize his tentative choices through vocational counselling.

Super and Bohn (1970) specify that vocational counselling is an aid to the "development and implementation of a self concept" (p. 196). Accordingly, a balanced counselling program may help the young teen to 'explore' some of the following questions.

- What sort of a person do I think I am?
- How do I feel about myself as I think I am?
- What sort of a person would I like to be?
- What are my values and needs?
- What are my aptitudes and interests?
- What can I do to reconcile my self-ideal with my real self?
- What outlets are there for me with my needs, values, interests, and aptitudes?
- How can I make use of these outlets?

Career counselling then, becomes a fusion of vocational and personal counselling. While cognitive facts are important, Super's theory recognizes that attitudes play an important part in a person's adjustments. As Super states:





Good vocational counselling deals with both the emotional and the rational, according to the way in which these types of factors are important in each individual case.  
(Super, 1970, p. 192)

Underlining the vocational counselling process, as has been mentioned before, but significant to repeat, is the emphasis on the self-concept as it relates to career choice. Super (1957) states:

The choice of an occupation is one of the points in life at which a young person is called upon to state rather explicitly his concept of self, to say definitely, "I am this or that kind of person."  
(p. 191)

A vocational guidance program for young adolescents would then help the young person

to develop and accept an integrated and adequate picture of himself and of his role in the world of work, to test this concept against reality, and to convert it into reality with satisfaction to himself and benefit to society. (Super & Bohn, 1970, p. 197)

Such a program, set in the context of warmth and empathy, should have a positive influence on a person's self-concept. It would appear that if misconceptions are viewed, hypotheses about self are discussed, realistic beliefs are self-reinforced, and unknown aspects of self are discovered, then one's conception about one's self will change.



A proposal that is fundamentally different than Super's theories is presented by Holland (1974). He claims that only 30% of students need career counselling. In calling for more, counsellors are basing their requests on their own needs, namely, to love and be loved to get through the day. As mentioned, Super attests that all students can benefit from vocational development counselling through a period of years. Although this thesis was not designed to prove or disprove a particular theorist, this research follows the theories of Super. It would appear then, that if a majority of the randomly selected students used in this project favoured the project, described in detail in the next section, then, Super's ideas of providing exploratory programs in early adolescence will be partially confirmed. However, Holland's criticism of Super's theory will gain credibility if less than half the students found the project useful.

The Sankey Saskatchewan Career Exploration Project: An Application of Super's Theory of Vocational Development

Sankey (1976) recommends 'personalizing' the process of career guidance. He has done this by having students "actively involved in a process of self-understanding . . . [so that the counsellee will] be able with confidence to



translate this knowledge into occupational terms that are both satisfying to them and a benefit to the society they live in" (p. 20).

The following is a description of the Career Exploration Project (C.E.P.).

The C.E.P. has five phases: (a) orientation, (b) data collection, (c) self-exploration, (d) occupational exploration, and (e) future planning.

Orientation. This phase is conducted in small groups of students. The session lasts approximately two hours. Rapport is established quickly with the group such that feelings and concerns can be expressed. This helps students to realize that they are not alone in exploring and having concerns about career preferences and selection.

Specifically these topics are discussed:

1. The importance of occupational choice.
2. The need for careful educational and occupational planning.
3. The importance of self-understanding as a necessary prelude to good planning.
4. The importance of flexibility in planning.
5. The new role of women in the world or work.





Also during this orientation session, a sample booklet illustrating an anonymous student's scores on standardized tests is reviewed to give students an overview of the project. This booklet is similar to the one in Appendix B with scores filled in to give the students an exercise in interpreting the results for that sample student.

A letter (see Appendix D) is sent to parents of participating students in an effort to involve parental communication relating to career exploration.

Data collection. In order to gain a realistic picture of abilities, interests, and attitudes, a series of standardized tests are administered. This is a list of the tests:

1. General Aptitude Test Battery (GATB) (U.S. Employment Service, 1963) which measures the abilities of the student.
2. Interest test--either the Canadian Occupational Interest Inventory or the Kuder Interest Test (Kuder, 1960) is administered to discover the nature of the student's interests.
3. Work Values Inventory (Super, 1970) to discover such things as whether a person's work values include making money, helping people, etc.
4. Survey of Study Habits and Attitudes (Brown-Holtzman,



1967). This survey was included to help the student be aware of work habits and attitudes towards education, teachers, and their attitude toward postsecondary training and future work.

A summary of the various scores and their meanings are included in the student data booklet (see Appendix B) and thus are not described in more detail.

Prior to the administration of these tests, but after the group orientation session, the Career Exploration Questionnaire (C.E.Q.) (see Appendix A) was administered. This questionnaire has students provide an estimate of their abilities, interests, and other aspects relating to vocational considerations such as environmental conditions and physical strength. This data, along with the scores from the GATB, are processed by the computer programmed to select occupations on the basis of the twelve factors described in the Canadian Classification and Dictionary of Occupations. (Since interests are divided into two categories, namely #7 and #9 (below), 13 appear in this list.)

1. Years planned in high school.
2. Post high school education in years.
3. Estimate of aptitudes compared to GATB.
4. Colour discrimination.



5. Strength.
6. Physical activity.
7. Preference for indoor/outdoor activities.
8. Environmental preferences.
9. Interests.
10. Temperments.
11. Sex (M or F).
12. Musical ability.
13. Art ability.

Sample computer printouts are shown in Appendix C which demonstrate how the above factors are listed. The printout has four sections:

1. A summary of the 13 categories, including a comparison of actual abilities scored on the GATB to the estimate of his abilities selected by the student on the C.E.Q.
2. Ten occupations chosen in completing the C.E.Q. along with a computer analysis of inconsistency between the counsellor's selection and the factors given to the computer. For example, a student may choose 'teacher' as an occupation, but may also have placed on the C.E.Q. that he only plans to attend one year of post high school training. Since teaching training takes four years, the computer brings this inconsistency to the student's attention.



3. The third section of the printout provides a series of occupations that relate to the GATB scores and the responses to the 12 factors of the Canadian Classification and Dictionary of Occupations.

4. A series of occupations is also provided that relates the estimated abilities, that is, the student's self-conception of his abilities, to the 12 factors of the Canadian Classification and Dictionary of Occupations. This is interpreted as a 'self' report of abilities which directly reflects the student's self-concept.

Should a student limit some factors narrowly or have obvious inconsistencies such as the teacher selection example (above), then a re-run of the information can be processed changing the factor to make allowances. This explains the reason for three printouts in Appendix C as three runs were run for one student.

Self-Exploration. This phase is provided in a one-to-one counselling session. The counsellor trains the counsellor to interpret his data. A booklet of this information (see Appendix B) contains a simplified explanation of each score. During this phase the counsellor's role is to assist the student to integrate the data and thus have the client become aware of his abilities, interests, needs,





work values, and attitudes. To do this, typical counsellor statements include: "What is your highest . . . ?", "Can you give an example from your experience that . . .?" and "Would you tell me about that?"

Thus the counsellor is active in getting the client active in interpreting both the test data and his feelings. As Sankey (1974) states:

In as much as decisions in occupational choice will ultimately be made on the basis of not only objective but subjective information, it was considered important that the client become knowledgeable about himself in both of these areas. (p. 19)

Following the interpretation of the test results, the individualized computer printout is examined. Students are assisted in definitions of any occupations with which they require assistance. Those that do not fit within the student's range of values, needs, and interests, are stroked off with a pencil by the student.

Occupational exploration. This phase is carried out by the student in using career information found within the school. This includes:

1. The Canadian Classification and Dictionary of Occupations to assist students in looking at other occupations related to computer selection.



2. Occupational monographs.
3. Bulletins from various universities, colleges, technical, and trade schools.
4. Information on scholarships, apprenticeship training, student loans, etc.

Future planning. In a concluding individual counseling session, previously discussed data, along with the few selected occupations are reviewed. Course planning and further training are also discussed. Students are encouraged to plan around a band of occupations. For example, if a student selected 'dentist', he is also encouraged not only to look at pre dentistry, but also pre-veterinary, premedicine, and medical laboratory technician.

In this interview, unless another interview is required or requested, the student is given his folio of data, which brings the C.E.P. to a conclusion.

Evaluation of the project is then conducted as an optional feature of the C.E.P. A sample of the evaluation questionnaire composed by Sankey (1974) is included in Appendix D and Appendix E which are used for both pretesting and posttesting.



### Statement of Questions

Based on the theoretical orientation presented, the author expects that students administered the Career Exploration Project will achieve for themselves a statistically significant difference in their self-concepts. The selected level of statistical significance for all differences will be .05.

The questions concerning self-concept for the randomly selected grade ten students in Red Deer County Schools are as follows:

Question 1. Will there be a statistically significant difference in the self-concept measure (total positive) of the Tennessees Self Concept Scale for the experimental group as compared to the control group?

Question 2. Will there be statistically significant differences in each of the three divisions: identity, self satisfaction, and behavior; and each of the five sub-selves: physical self, moral-ethical self, personal self, family self, and social self for the experimental group as compared to the control group?

A summary of the post questionnaire compared with the pre questionnaire (P.P.Q.) for the experimental group will be presented.





Question 3. Are there changes in the experimental group in attitudes, educational plans, occupational plans, ideas about work and the future, and orientations to school?



## CHAPTER II

### REVIEW OF LITERATURE

The major concern of this chapter relates to the research in this thesis. Studies which have been reviewed involve the intersection of the self-concept (self-esteem) and vocational development (career development, career choice, and vocational choice) as well as some studies involving the use of the Tennessee Self Concept Scale.

This chapter will be limited to the research literature since the previous chapter discussed other literature relating to the topics under consideration. The studies will be abstracted alphabetically by author in tabular form, followed by a summary of that literature as it relates to the questions being considered.



<u>Author</u>	<u>Related Hypotheses</u>	<u>Subjects</u>	<u>Procedure</u>	<u>Results</u>
Avallone, V.L. (1974)	The Self Directed Search (SDS) and traditional vocational guidance model compared on 6 variables including enhancing self-concept as a result of vocational decisions.	3 groups from 684 freshmen who requested vocational guidance.	3 groups E group I-- SDS. E group II-- traditional vocational counselling model. group III-- control. Pre and post TSCS.	No significant change in self-concept as a result of vocational decisions.
Bitner, J.A.M. (1972)	Null hypothesis: no statistical difference between groups, and within groups over time. Scales used were total positive, self criticism, net conflict, total conflict, and six empirical scales.	4 groups of 10 each. N = 40. 1) Diabetic encounter group. 2) Non-diabetic encounter group. 3) Diabetic comparison sample. 3) Non-diabetic comparison sample.	Pre, post, and 4 week post follow-up after encounter groups met six weeks, three hours each week. Two by three analysis of variance between groups.	Null hypothesis is accepted. No data statistically supported significant differences for encounter groups for diabetics vs non-diabetic group or when compared to comparison samples.



<u>Author</u>	<u>Related Hypotheses</u>	<u>Subjects</u>	<u>Procedure</u>	<u>Results</u>
Bradley, A.B. (1971)	Observed results	237 inner-city residents in Detroit from 26 high schools. Family income \$3,000/year or less.	Pre and post scores. Mooney Problem Check List, Otis Quick Scoring Mental Abilities Test, Wonderlic Personnel Test, The Study of Values, and the 16PF administered after a guidance and counselling program involving vocational counselling.	The Mooney Problem Check List revealed less problems at end of summer. The E, G, and Q4 of the 16PF showed significant change. The author considers no real conclusion can be drawn.
Brook, R.C. (1968)	Self-concept change following sensitivity group for one week.	70 experimental and 32 control lay priests.	Pre and post administration of the TSCS. Analysis of covariance used because pre-test equivalence between experimental and control populations was not established.	No significant change of self-concept was noted.





<u>Author</u>	<u>Related Hypotheses</u>	<u>Subjects</u>	<u>Procedure</u>	<u>Results</u>
Driede, K.P. (1973)	Two major factors account for the variance of the scales; an evaluative or self-acceptance factor and a descriptive or self-perception factor. Similar factor patterns will be produced by the factor analysis of the test scores of both groups.	83 male undergrads 39 psychiatric patients.	seven scales from four standardized instruments administered: Self-acceptance--Personal Orientation Inventory (POI), Self-regard--POI, self-acceptance--Index of Adjustment and Values (IAV), perceived self--IAV, self-satisfaction--TSCS, identity--TSCS, self-acceptance--California Personality Inventory (CPI), self-rating scales.	One major factor only was found for orthogonal and oblique solutions and interpreted to be both evaluative and descriptive aspects of self-perception. Accepted, highly congruent. No clear distinction between scales constructed to assess evaluative components and those to assess descriptive components of the self-concept. Most of the scales measure a single major common construct "self-concept."



<u>Author</u>	<u>Related Hypotheses</u>	<u>Subjects</u>	<u>Procedure</u>	<u>Results</u>
Flake, M.H., Rouch, A.S., & Stenning, W.F. (1975)		Chosen from grade 10 English. n = 17 ex- perimental n = 19 con- trol. n = 36 all below mean on CMI	Counselling 3 times during 6 week period. CMI, Attitude, and Competency Scale (self- appraisal only) administered pre and post. Session I: Get acquainted, 4 general career plays. Session IIa: Gordon Occupational Checklist and GATB adminis- tered. Session IIb: GATB results individually dis- cussed. Session III: 45-60 minutes in review, CMI im- mature responses reviewed. Positive reinforcement given to experimental sub- jects for mature responses.	Self Appraisal Scale was signi- ficant at .02 level. Total score significant differences at the .02 level. The Attitude Scale was not significant ( $p < .07$ ).



<u>Author</u>	<u>Related Hypotheses</u>	<u>Subjects</u>	<u>Procedure</u>	<u>Results</u>
Gable, R.K., LaSalle, A.S., & Cook, K.E. (1973)	Construct validity of TSCS.	125 college freshmen.	Factor analysis	The five columns measuring exter- nal frame of ref- erence were con- sistent factors but not the rows. (A larger sample is recommended to confirm this finding.)
Great Cities Program for School Improv- ment (Demonstra- tion Guidance Project). (1973)	Increased aspiration and self-esteem ex- pected after process as outlined in pro- cedures.	n = 717 jun- ior high, grades 7, 8, & 9, inner city, mean IQ 95, be- hind 1½ years in reading and math.	Greatly enriched counselling pro- gram; ratio re- duced from 1: 1400 to 1:235, high school, 1:100, plus so- cial workers, psychologist, consultative psychiatric ser- vice; group guidance once/ week designed to raise self- image and as- piration level; Cultural enrich- ment--trips to	1/3 better grad rate from high school; 250% more received diplomas; 300% less failures; 333% more above 80%; 750% increase above 85%; 250% increase in higher education enroll- ment (only 8% drop out). No self-concept measures reported --just these be- havioral outcomes.





<u>Author</u>	<u>Related Hypotheses</u>	<u>Subjects</u>	<u>Procedure</u>	<u>Results</u>
Great Cities (continued)			<p>theatre, movies, ballets, etc.  Reduced pupil teacher ratio  1:10-15; professional development; parent education stressing positive to raise aspiration level of parents for children.</p>	
Herr, E.L., & Thomas, E., (1976)	Are there differences in mean scores on CMI among three grades 9, 10, & 12 and between males and females.	n = 1553 from three high schools academic, vocational, and general.	<p>Longitudinal research administering the Crites CMI. 2 x 3 analysis of variance.</p>	<p>Not possible to determine if significant difference exists among the three grade levels in this analysis due to grade interaction in one of the schools.  Means for grades 9 and 12 respectively: School A, 35.41 &amp; 36.15; School B, 35.28 &amp; 36.37; School C, 34.25 &amp; 36.67.</p>



<u>Author</u>	<u>Related Hypotheses</u>	<u>Subjects</u>	<u>Procedure</u>	<u>Results</u>
Herr & Thomas (continued)				F ratio for the between subjects factor, sex, was equal to 46.31 and was significant at the .001 alpha level; Females increase in linear rate, males tend to level off; females achieved higher scores in all three grades.
Hufker, G.C., (1974)	A battery of tests would be useful in working with student teachers to measure openness and self-concept.	42 student teachers: elementary, special, and secondary.	Administered pre and post for openness: Rokeach's Dogmatism Scale form E; Bill's Teacher Problems; Q-sort; TSCS (self criticism Scale) For self-concept TSCS. Pretest data used for analysis due to little difference between pre and post.	Low correlations for openness amongst the three tests, therefore each author approached openness differently. Author recommends 1) subscales of TSCS analyzed by teacher educators 2) recommend use in career-choice counselling.



<u>Author</u>	<u>Related Hypotheses</u>	<u>Subjects</u>	<u>Procedure</u>	<u>Results</u>
Jackson, D.S., & Egner, J.R. (1976)	Program effectiveness studied as it relates to career maturity, career decision making, sex differences, and educational and occupation exploration.	eleventh grade, academic and non-academic students. N = 337. 24 groups from 6 schools.	Treatment: a mini-course based on Blair's model of occupational choice and Jackson-Egner decision making model. Career maturity and decision making questionnaire pre and post tested.	Analysis of covariance program significance at .001 level on career maturity. Posttest decision making scores increased, significantly for one academic and 3 non-academics. Females scores significantly higher on career maturity, decision making, educational, and occupational exploration. SES had a low relationship to both career decision making (.14) and career maturity (.03).



<u>Author</u>	<u>Related Hypotheses</u>	<u>Subjects</u>	<u>Procedure</u>	<u>Results</u>
Jones, O.M., Hansen, J.E., & Putman, B.A. (1976)	Significant differences in vocational maturity among subjects in Holland's vocational categories. There is a significant relationship between self-concept and vocational maturity among subjects in Holland's six vocational categories.	846 randomly selected grades 8 to 12 students. City schools.	Personal data form, Tennessee Self-concept Scale, Vocational Development Inventory, and Vocational Preference Inventory. Multivariate analysis of variance used to determine significance.	Vocational maturity and self-concept are significantly correlated in the realistic, social, conventional, and artistic vocational categories. Students in the investigative, social, and conventional have the highest level of self-esteem. A significant difference exists in mean self-concept among subjects in the six personality categories. Subjects whose preferences are in realistic category have lower self-concept than investigative, social, and conventional categories. Students' mean self-concept





<u>Author</u>	<u>Related Hypotheses</u>	<u>Subjects</u>	<u>Procedures</u>	<u>Results</u>
Jones et al. (continued)				do not show clear differentiation among the 5 grade levels or between males and females. There was a weak relationship (not significant) in social, enterprising, conventional, realistic categories between self-esteem and vocational maturity. Authors recommend, on basis of study, to examine self as well as information about careers.
Kabuchian, S.F. (1972)	Changes on E.P.P.S.	20 freshmen	Two way analysis of variance of E.P.P.S. administered before and after 25 hour T-group marathon.	No distinguishable differences on E.P.P.S.



<u>Author</u>	<u>Related Hypotheses</u>	<u>Subjects</u>	<u>Procedure</u>	<u>Results</u>
Letner, R.C. (1970)	Will the experimental group indicate a significant change of score in any or all of the 29 scales used in this research.	86 volunteers for group counselling from reformatory. 41--group counselling. 45--none.	Pre and post administration of the TSCS. Data analyzed using Stepwise Discriminant Analysis for mulation. Approximately 20 sessions of group counselling sessions of 2 hours over 3 months.	The control group changed as much as the experimental group as measured by the TSCS.
Myers, R.A., et al. (1975)	Does the ECES provide a statistically significant increase in vocational maturity.	experimental n = 792 10th grade. Female = 415, male = 415; Control n = 1,453 10th grade.	Average 3 hours on a computer based educational and occupational exploration system (ECES). Post testing with Career Development Inventory (CMI) during academic year. Analyses of covariance used.	More time spent on career exploration, the more planning orientation and choices of resources for exploration. Those who spent more than 7 hours did not show corresponding larger gain. Significant gains in career maturity in A. planning orientation ( $p < .01$ ),



<u>Author</u>	<u>Related Hypotheses</u>	<u>Subjects</u>	<u>Procedure</u>	<u>Results</u>
Myers et al. (continued)				B. occupational exploration (p 4.01), but not in C. information and decision making. No sex difference were noted in A, however, females did noticeably better in B & C.
Norton City Schools: Dilenowisco Four I's Project (1976)	A comprehensive 3 year program to offset the drop-out problems. 1) Intervention--curriculum modification. 2) Introduction of skills and jobs available to students. 3) Investigation and inquiry into occupational skills and opportunities needed. 4) Involvement in learning to apply for, get, and hold a job. The above is designed to	n = 327 elementary and secondary students in South West Virginia	Pre-posttesting with California Test of Personality.	The California Test of Personality indicated change of self-concept with the exception of the personal adjustment score for one group of girls. Teachers report that students became more open and relaxed. They talk more with their teachers, and tend to be more at ease. Teachers'





<u>Author</u>	<u>Related Hypotheses</u>	<u>Subjects</u>	<u>Procedure</u>	<u>Results</u>
Norton City (continued)	offset school drop outs and raise self- esteem.			attitudes changed from reluctance to enthusiasm.
Pound, R.E., (1976)	Contributions of TSCS to understand- ing of self-concept and contributions of TSCS to under- standing of voca- tional maturity.	junior and senior stu- dents. 100 males 100 females	Self-concept provided by TSCS. Vocation- al maturity by Vocational Development Inventory Attitude Test.	Tot. P was found to be a general factor of measured self-esteem and contributes as much as combined subscales. Self- concept is weakly related to voca- tional maturity. The TSCS is a worthwhile tool for vocational guidance in help- ing adolescence make educational and vocational decisions. Total P score best gen- eral factor of self-concept. TSCS good instru- ment for vocation- al counselling of adolescence.



<u>Author</u>	<u>Related Hypotheses</u>	<u>Subjects</u>	<u>Procedure</u>	<u>Results</u>
Retz, R., & White, Wm. (1967)	The validity of the TSCS eight self- esteem variables and the four self- criticism variables	138 univer- sity stu- dents.	Factor analysis of TSCS self- esteem and self- criticism vari- ables.	Study supported 2 independ- ent factors: self- esteem (Tot. P) and conflict- integration.
Sankey, G.R. (1974)	Determine the effec- tiveness of the Career Exploration Project by P.P.Q. Questionnaires (see Appendixes E & F) including the Career Maturity Inventory (attitude scale).	45 grade 10 boys; 60 grade 10 girls; 40 grade 12 boys; 44 grade 12 girls; Rural high school.	Pre and post questionnaire given treatment group and con- trol group. Treatment was the Career Ex- ploration Pro- ject. <u>t</u> tests and analysis of variance.	Career Maturity Inventory: grade 10 boys <u>t</u> score 2.013 significant ( $p < .05$ ), grade 10 girls <u>t</u> score 4.352 significant ( $p < .01$ ), not significant for grade 12 boys or girls. P.P.Q. Questionnaire re- sults: 86% felt project should be repeated. 72% of students felt sitting down with counsellor best part of project.



<u>Author</u>	<u>Related Hypotheses</u>	<u>Subjects</u>	<u>Procedure</u>	<u>Results</u>
Sankey, G.R. (1975)	Evaluation of the Career Exploration Project using TSCS and the P.P.Q. Questionnaires (see Appendixes E and F) which includes the Career Maturity Inventory (attitude scale)	50 experimental grade 10 subjects 50 control grade 10 from City Park, Collegiate, Saskatoon.	Experimental and control group given the TSCS and P.P.Q. Questionnaire, pre and post analysis of variance used where appropriate.	Career Maturity Inventory results (one way analysis of variance with repeated scores). 1. Effective for girls ( $p < .001$ ). 2. Not significant for boys ( $p < .10$ ). 3. Not significant for control group. Tennessee Self Concept Scale results: 1. The experimental group did not change significantly. The questions on the P.P.Q. Questionnaire rated the Career Exploration Project favourably. 92.3% indicated an aid to planning vocational future (i.e. definitely helpful or somewhat helpful).



<u>Author</u>	<u>Related Hypotheses</u>	<u>Subjects</u>	<u>Procedure</u>	<u>Results</u>
Sankey (1975) (continued)				94.2% felt the project should be given again. 82.7% responded that sitting down with a counsellor helped the most on the project.
Shreve, R.E. (1973)	Four measures of self-concept were analyzed including the TSCS. Others were the Piers-Harris Children's Self Concept Scale, Thomas Self Concept Values and Self Esteem Inventory.		Compared against the Standards for Educational and Psychological Tests and Manuals published in 1966 by the American Psychological Association.	Favourable judgment on all four tests, although none reached all 13 reliability and validity standards.
Vachiano, R.B., & Strauss, P.S. (1968)	The construct validity of the TSCS.	n = 121 females, X age 19.1 years. n = 139 males, X age 21.3 years. College freshmen.	Construct validity checked through factor analysis.	Supports validity of test of self-concept and the 5 columns of TSCS, physical, moral, ethical, personal, family, and social. The 3 row scores are not supported.





<u>Author</u>	<u>Related Hypotheses</u>	<u>Subjects</u>	<u>Procedure</u>	<u>Results</u>
Vachianno & Strauss (continued)				Authors suggest further research as this just tested one group, i.e. college freshmen.
Vanderpool, S.A. (1969)	Studied self-concepts of alcoholics when (1) sober, (2) drinking slightly, and (3) drinking moderately.	50 male alcoholics	Pre and post testing.	Subjects had significantly lower self-concepts than norms of TSCS. Self-concepts lower when more alcohol ingested.
Wills, B.S. (1972)	Null Hypothesis: II--groups of males would not be discriminated by the theory related variables used in the study. III--same as II for females.	277 male freshmen 263 female freshmen n = 540	Administered POI to three male groups and three female groups selected on basis of raw data approximately 12, 50, and 92 percentiles. Then administered: Tennessee Self Concept Scale, Differential Value Profile,	Groups of males and females differ in perception of self on I scale of POI (p < .01). Male and female freshmen indicate sex differences on these variables of the TSCS: moral-ethical self, personal self, self criticism, and social self. Sex differences noted.



<u>Author</u>	<u>Related Hypotheses</u>	<u>Subjects</u>	<u>Procedure</u>	<u>Results</u>
Wills (continued)			Mehrabian Achievement Scale for Males/Females, Personal Data Survey (by author). Analyzed by multiple discri- minant analysis.	
Wamhoff, C.H. (1969)	Identification and assessment of the construct "self- concept of voca- tional ability" (SCVA), and rela- tionship of the SCVA to other factors that influence career development.	n = 361 139 males 222 females university students.	The pattern pre- viously devel- oped at Michigan State University used. Question- naires were used for SES data.	Substantial rela- tionship was found to exist between self evaluation variables and the perception of others. Socio- economic status (SES) of parents was not signifi- cantly related to SCVA. Findings support the con- tention that the SCVA may operate irrespective of the SES of various occupations and the SES of parents.



<u>Author</u>	<u>Related Hypotheses</u>	<u>Subjects</u>	<u>Procedure</u>	<u>Results</u>
Warner, R.W. (1969)	Testing the effectiveness of verbal reinforcement with alienated youth will yield statistically significant changes in self-esteem	High school students	Alienated youth selected by Dean's score of alienation.	No changes in self-esteem as measured by TSCS after treatment. Those high in alienation were low in self-esteem.
Wearne, T.D., & Powel, J.C. (1976)	Significant differences on TSCS after group or individual counselling.	n = 108 grade 9 girls, commercial secondary school.	Randomly assigned treatment: 1. group counselled, 2. individual counselled, 3. non-counselled (control). 15 week counselling. Self-concept pre and post measured on TSCS. Analysis of variance ( <u>F</u> test) and <u>t</u> test for selected parts of data.	Both groups showed significant increases in the total self-concept and the 8 internal measures of the counselling form of the TSCS. There was no significant difference between the non-counselled pre and post. There was no significant difference in the methods of counselling: group vs individual counselling.



### Summary Comments on Studies

The research reviewed has involved students from junior high to college as well as some adult subjects from other segments of society. Most of the studies reviewed were treatment oriented. The majority of these indicate that self-concept is a fairly stable part of the personality for those populations studied.

The treatment offered did not change the self-concept significantly in T groups (encounter, sensitivity), inner city summer vocational counselling programs, self-directed search, reformatory counselling programs, and verbal and model reinforcement for alienated youth. The author of the Career Exploration Project (Sankey, 1975) has also reported that in using the C.E.P. there is not a statistically significant change in self-concept with grade ten city high school students.

One study (Wearne & Powel, 1976), in attempting to demonstrate the superiority of either group or individual counselling, found that both counselling types yielded a change in self-concept for both the total positive score and the eight internal measures of the counselling form of the TSCS.

Specific variables to be considered in self-concept





studies were noted in four other reviews. Wells (1972) found sex differences on some of the subtests of the TSCS. Wamhoff (1969) and Jackson and Egner (1976) report that socio-economic status does not have a significant relationship to self-concept. The Dilenowisco Four I's project (1976) indicated that the length of time by which treatment is applied may have contributed to self-concept change.

Studies that relate self-concept to vocational development often cite the Career Maturity Inventory (CMI). Significant differences after treatment on the CMI are noted in Sankey (1974, 1975), Myers (1975), Jackson and Egner (1976) following career exploration activity treatment. Sex differences were also noted in these studies, as well as Herr and Thomas (1976). Flake et al. (1975) also had a change in the CMI, although unlike the above studies, there was not a significant change on the attitude scale of the CMI. It is note worthy that Pound (1976) found a relationship of the CMI to the TSCS among 200 junior-senior high school students.

One of the limitations of many of the self-concept studies is the widespread usage of the TSCS as an accepted measure, when noted researchers as reported in Buros (1972) and Wylie (1974) call for a more thorough validation of the



test. Only a few studies available at this time satisfy this request and those studies are limited to a specific population. Wylie (1974) also requests that variables be more thoroughly "considered and controlled in designing, applying, and interpreting scores from instruments" (p. 123).

The research findings briefly summarized, then, suggest that:

1. Self-concept is a fairly consistent part of a subject's personality, not readily changeable by short term counselling programs.

2. The Career Maturity Inventory (attitude scale) does change in appropriately designed vocational development programs, although an exception is noted.

3. The Total P score on the TSCS yields as much information as the combination of the five column and three row scores. Interpretation of the latter eight scores needs to be treated with caution (Gable et al., 1973; Retz & White, 1967; Vachianno & Strauss, 1968).



## CHAPTER III

### SUBJECTS, RATING SCALES, AND METHODS

#### The Subjects

The subjects for this research were selected at random from the 316 students on the 1975-76 grade 10 class lists in Red Deer County, Alberta. This rural area surrounding the City of Red Deer is one of the wealthiest areas of Alberta. The grade one to twelve school population totaling approximately 4,200 is drawn from the farms, acreages, villages, and towns of the county.

#### Rating Scales

The major rating scale was the Tennessee Self Concept Scale (TSCS) while a secondary measure was the Pre-Post Questionnaire which accompanied the materials received from the University of Saskatchewan (Sankey, 1974, 1975).

The Pre Questionnaire. This instrument was designed by Sankey for evaluative and diagnostic purposes (see Appendix E). It is used by the counsellor to become acquainted with the student's concept of himself prior to his first interview session. The questionnaire, with few exceptions, was borrowed from an extensive study by Breton (1967). The exception to this is section "C" of the questionnaire which is the Career Maturity Inventory (attitude scale)



(Crites, 1973).

This attitude scale attempts to measure four dimensions: involvement in the choice process, orientation toward work, independence in decision making, preference for career choice factors, and conceptions of the choice process. The respondent is required to answer true or false to 50 statements such as, "I seldom think about the job I want to enter" or "Work is dull and unpleasant." The inventory requires a fifth to sixth grade reading level.

Internal consistency on subjects from grades 6 to 12 (N's ranging from 255 to 1,349) using the Kuder-Richardson formula 20 values averaged .74 with the lowest being .65 and the highest .84. Test-retest stability over a one year interval yielded  $r = .71$  ( $n = 1,648$  students). Crites reports that three out of four psychologists agree with the score key.

The Post Questionnaire also includes the Career Maturity Inventory along with most of the questions on the pre-questionnaire. This second questionnaire also asks respondents to give their opinions about the Career Exploration Project (see Appendix F).

Tennessee Self Concept Scale (TSCS). The TSCS is a self-report, 100 self-descriptive statement inventory which





the examinee chooses one out of five responses ranging from "completely true" to "completely false." It can be self-administered to individuals or groups, 12 or older, taking a mean time of 13 minutes. It requires a minimum grade six reading level. Hand scoring takes between 10 to 20 minutes depending on the form used.

Fitts (1965) developed the TSCS while working for the Tennessee Department of Health. He devised two forms, a counselling form and a clinical and research form. The test items and answer sheet are the same for both forms with only the scoring procedure being different. The clinical and research form yields 29 scores; the counselling form has 14, taking less time to score. The counselling form scores are considered appropriate for feedback to an individual.

Tot. P, the total of the column and row scores, is a total self-esteem measure (Fitts, 1965). A high score indicates the person tends to like himself, feels he is a person of value and worth, has confidence in himself, and acts accordingly. People with low scores are doubtful about their own worth, see themselves as undesirable, often feel anxious, depressed, and unhappy, and have little faith or confidence in themselves.



The TSCS contains 90 items which contribute to a total 'P' score (Tot. P). Ten additional items make up a self-criticism score which is used to screen out those examinees who are being defensive and trying to present an overall favourable picture of themselves. The profile sheet is arranged in a two dimensional, 3 x 5 grid matrix. The three row scores are identity--"what I am," self-satisfaction--"how I feel about myself," and behavior--"what I do." The five column scores are physical self, moral-ethical self, personal self, family self, and social self. The rows are said to reflect an internal frame of reference, while the columns are used to reflect an external frame of reference (Fitts, 1964). Fitts claims the TSCS is "simple for the subject, widely applicable, well standardized, and multi-dimensional in its description of the self concept" (1965, p. 1).

Test items for the TSCS were collected from other self-concept measures and verbal responses from patients and non-patients. Seven clinical psychologists judged the items from the total pool and items were selected only if they reached unanimous consent in judgment by the psychologists. The self-criticism items were adopted from Lie items of the Minnesota Multi-phasic Inventory (MMPI). According to



the author, a two week test-retest reliability co-efficient of .92 for Tot. P was demonstrated for college students. Fitts (1965) reports co-efficients of reliability from other studies that range from .80 to .90 (p. 15).

There are norms for converting raw scores to T-scores or percentiles. The sample of men and women, negroes and whites, (n = 626) ranged in age from 12 to 68. Fitts claims there is no difference in "sex, age, race, education, or intelligence" (1965, p. 13).

The TSCS manual (Fitts, 1965) indicates construct validity is provided in numerous studies involving psychiatric patients, delinquents, juvenile repeat offenders, alcoholics, unwed mothers, and those scoring low on personality integration. Fitts also demonstrates predictive ability of the TSCS with paratroup trainees under stress, female therapy patients, and psychotherapy groups.

Bentler in reviewing the TSCS in Buros (1972) states that "general scores from the scale have remarkably high correlations with other measures of personality functioning" (p. 583). He cited a correlation of  $-.70$  with Tot. P with the Taylor Anxiety Scale, and correlations from  $.50$  to  $.70$  with the Cornell Medical Index. However, Bentler has two criticisms: (a) no factor analysis has been reported with





regards to internal structure, and (b) a high degree of over interpretation considering only 100 items were scored.

Also reviewing in Buros (1972), Suin supports the construct validity of the TSCS: "among the better measures combining group discrimination with self concept information" (p. 369). Suin, like Bentler, calls for more information on the validation of the individual scores, including row and column measures.

In a review of self-concept measures, Wylie (1974) indicates that the TSCS is one of the more frequently used self-regard instruments. She reacts unfavourably to the TSCS because Fitts has not backed up some of his claims for the measures, such as "simpler for the subject, more widely applicable, and better standardized" than any other similar measuring device. She does acknowledge that the Tot. P score is better, though, than the row and column scores.

Criticisms of the TSCS frequently involve a lack of research on the construct validity of the individual row and column scores. The call for more factor analytic studies cited above, only has received limited attention. Retz and White (1967) in studying university students (n = 138) determined only two independent factors, namely, self-esteem (Tot. P) and conflict integration.





Vachianno and Straus (1968), in studying college freshmen (n = 260), concluded that there is some validity for the five column scores. Thus, significant constructs are being measured for the self, namely, physical, moral-ethical, personal, family, and social when factors are considered together. A later factor analytic study by Gable et al. (1973), likewise employing college freshmen (n = 125), also determined the construct validity of the five columns but not the rows. These latter two research groups recommend broader and larger samples to test their findings. Until such time as this is available, both the row and column scores need to be treated with caution. It should be noted that all studies support the total positive (Tot. P) score as a measure of a factor.

### Procedure

A treatment group (n = 45) and a control group (n = 45) were selected from the grade ten students in the five Red Deer County High Schools. All grade ten students were introduced to the project by being told this information:

1. They would be involved in studying their abilities, interests, and attitudes, along with careers that relate to themselves.

2. A similar project in a private agency would be



quite costly, but those participating would do so at no cost to themselves.

3. The C.E.P. was being run as a trial project in an effort to provide improved vocational counselling in the County.

4. Only a few students would be selected to be involved in the project, and only half of those involved would actually receive the Career Exploration Project.

5. Participation, while appreciated, was voluntary.

The students in each group completed the TSCS. After completing this scale, the treatment group did the pre-questionnaire and the Computer Exploration Questionnaire (CEQ). No contact was made with the control group again until the end of the project at which time both groups were administered the TSCS. The treatment group was also administered the post questionnaire at this time.

The initial introductions, administration of the TSCS, and the pre-post questionnaires, as well as the General Aptitude Test Battery were conducted by the author of this thesis. The counsellor of each school along with the author jointly conducted the warm-up session. The other inventories (work values, Kuder interest, and study habits) were given by the school counsellor who also conducted the



individual interviews.

### Statistical Design

The TSCS was statistically analyzed by a 2 x 2 x 3 factorial design ( $p \leq .05$ ) in which the variables A, sex (male or female), B, group (experimental or control), and C, level on pretest (high, medium, or low) were compared for the pretests versus posttests. This analysis was done for Tot. P and each of the internal self measures, namely, (a) identity self, (b) judging self, (c) behavior self, (d) physical self, (e) moral-ethical self, (f) personal self, (g) family self, and (h) social self. The means and standard deviations were calculated for statistically significant ( $p \leq .05$ ) measures. A 2 x 3 factorial design, with variables A, group (experimental or control) and B, level on pretest (high, medium, or low) was used to determine if there was a statistically significant ( $p \leq .05$ ) difference for each sex comparing control and treatment groups on pretests versus posttests. This analysis was done separately for males and females on each Tot. P and the eight variables stated above.

Most of the pre-post questionnaires, excepting the Career Maturity Inventory, were tallied and the percentage of students responding to each question calculated for each



questionnaire. The Career Maturity Inventory (attitude scale) was compared statistically between the pre-post administration by the  $t$  test ( $p \leq .05$ ).

The TSCS is considered the major tool for this research whereas the questionnaires are introduced to assist in the discussion about the treatment process. The next chapter provides the results of the analyses described in this section.





## CHAPTER IV

### STATISTICAL RESULTS

#### The Total Positive Self-Concept Measure

The first analysis, a three-way analysis of variance, was performed to determine if there was a statistically significant difference in self-concept as determined by the total positive measure (Tot. P) of the Tennessee Self Concept Scale (TSCS). Arrangement of the data was by A, sex (male, female), B, group (experimental, treatment), and C, level by pretest (high, medium, low). The results of these analyses will be presented individually.

Throughout this discussion issues relating to the relative magnitude of scores will arise. Therefore, Tables 2 and 3 are provided for continuing reference.

It should be noted that the research design was established for 90 students (experimental  $n = 45$ , control  $n = 45$ ). Since participation in both groups was voluntary, three students withdrew at the beginning, two others had incomplete data. Forty students, then, completed the C.E.P. One additional student's data was withdrawn as he was depressed on the post testing day. Thirty-seven control group students completed both the pre and post TSCS.



TABLE 2

TOTAL POSITIVE, TENNESSEE SELF CONCEPT SCALE

MEANS, GAINS IN MEANS, AND STANDARD DEVIATIONS

Test	Control		Experimental	
	Males (n=16)	Females (n=21)	Males (n=16)	Females (n=23)
	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$
	SD	SD	SD	SD
Pre-test	318.4	29.8	330.7	25.7
Post-test	319.3	25.6	331.9	27.6
Gains in means	.9	1.2	7.8	12.3
Total group gain	1.1		10.5	



TABLE 3

THREE-WAY ANALYSIS OF VARIANCE

COMPARING PRE-TEST VS POST-TEST FOR

SEX, GROUP, AND PRE-TEST LEVEL

ON TOTAL POSITIVE, TENNESSEE SELF CONCEPT SCALE

Source of Variation	<u>SS</u>	<u>DF</u>	<u>MS</u>	<u>F-ratio</u>
a				
A	2,558.08	1	2,558.08	5.27 *
b				
B	4,378.69	1	4,378.69	9.03 **
AB	386.66	1	386.66	.80
c				
C	21,202.9	2	10,601.5	21.86 ***
BC	2,064.52	2	1,032.26	2.13
AC	1,849.91	2	924.96	1.91
ABC	1,021.24	2	510.62	1.05
Error	31,038.0	64	484.97	

a

A refers to sex (male-female).

b

B refers to group (treatment-control).

c

C refers to levels (high-medium-low).

\*  $p < .05$ .\*\*  $p < .01$ .\*\*\*  $p < .001$ .



Three-way analysis of variance was performed to determine if there was a statistically significant difference between the means of the pre and post Tot. P scores for the experimental and control groups (variable B). The data on Table 3 indicated that there was a significant difference ( $F(1,64) = 9.03, p < .01$ ). An inspection of Table 2 demonstrated that the gains must have occurred in the treatment group as those gains are much larger.

Since there was not a significant interaction either with variable A, that is AB (sex-group) or with variable C, that is BC (group-level), then, the original question can be stated in the affirmative: the Career Exploration Project as administered in Red Deer County, appeared to cause students to achieve for themselves a statistically significant increase in their total self-concept as demonstrated by a significant increase in Tot. P on the TSCS.

The major question asked in this thesis has now been addressed; however, the data available allow for further analysis and discussion. Variable C represents the comparison of pre-post means when the experimental and control groups are divided into three levels; low, medium, and high. The ceiling levels were low = 319 and medium = 344. There was a statistically significant increase between pre and





post means on Tot. P for all three levels ( $\underline{F}$  (2,64) = 21.86,  $\underline{p}$  .001). There was no significant interaction with either group or sex.

A third factor, sex (variable A), was also examined. As Table 3 indicates, considering all subjects, control and experimental, there was a significant difference between the sexes, between pre-post scores ( $\underline{F}$ (1,64) = 5.27,  $\underline{p}$  < .05). Since there was no interaction with either group or level, it can be assumed that both males and females increased in their Tot. P means. Table 2 illustrates the increase by males of 7.9 and females 12.3. A two-way analysis of variance was used to determine if there was a statistically significant sex difference. Table 4 indicates that males did not increase significantly in their total positive self-concepts, comparing treatment and control on the post test to pretest raw scores ( $\underline{F}$ (1,26) = 1.74,  $\underline{p}$  = .20,  $\underline{p}$  > .05). Females did increase significantly ( $\underline{F}$ (1,38) = .98,  $\underline{p}$  = .003,  $\underline{p}$  < .01). Thus it can be concluded that when the total group is considered there is a significant increase in self-concept as measured by Tot. P of the TSCS. However, when sex is considered, the females increased significantly while the males did not increase significantly.



TABLE 4

TWO-WAY ANALYSIS OF VARIANCE

COMPARING PRE-TEST VS POST-TEST

FOR GROUP AND PRE-TEST LEVEL

FOR MALES AND FEMALES SEPARATELY

ON TOTAL POSITIVE, TENNESSEE SELF CONCEPT SCALE

Source of Variation	<u>SS</u>	<u>DF</u>	<u>MS</u>	<u>F-ratio</u>
<u>Males</u>				
a				
A	923.34	1	923.34	1.74
b				
B	15,171.6	2	7,585.8	14.28 ***
AB	1,058.84	2	529.42	1.00
Error	13,817.0	26	531.42	
<u>Females</u>				
a				
A	4,445.24	1	4,445.24	9.81 **
b				
B	10,225.0	2	5,112.52	11.28 ***
AB	1,643.56	2	821.78	1.81
Error	17,221.0	38	453.18	

a

A refers to group (treatment or control).

b

B refers to levels (high, medium, or low).

\*\*  $p < .01$ .\*\*\*  $p < .001$ .



### The Eight Internal Variables of the TSCS

A similar analysis was performed for each of the internal variables of the TSCS. In comparing the total group, the experimental group, and the control group on the pre and post tests using three-way analyses of variance, the following internal variables were found to be significantly increased: (a) identity self ( $F(1,64) = 5.25, p < .05$ ), (b) judging self ( $F(1,64) = 9.03, p < .01$ ), (c) personal self ( $F(1,64) = 4.23, p < .05$ ), and (d) social self ( $F(1,64) = 4.56, p < .05$ ). See Tables 5, 6, and 7 for other statistics relating to this analysis.

The two-way analysis of variance was also performed for the eight internal variable scores for males and females separately. Corresponding to the Tot. P analysis (above) the males achieved no statistically significant increases on any of the eight internal variable measures (see Table 8). However, a similar analysis for females yielded significance in five of the eight measures: Columns A. physical self ( $F(1,38) = 12.94, p < .001$ ), C. personal self ( $F(1,38) = 9.12, p < .01$ ), E. social self ( $F(1,38) = 4.88, p < .05$ ); and Rows 2. judging self ( $F(1,38) = 11.29, p < .01$ ), and 3. behavior self ( $F(1,38) = 5.15, p < .05$ ) (see Table 9). There were no interaction effects in any of these significant



TABLE 5  
THREE-WAY ANALYSIS OF VARIANCE  
TREATMENT (n=39) AND CONTROL (n=37) COMPARISON

	<u>SS</u>	<u>DF</u>	<u>MS</u>	<u>F-ratio</u>
Total positive	4,328.69	1	4,378.69	9.03 **
Identity self	355.67	1	355.67	5.25 *
Judging self	821.49	1	821.49	8.71 **
Behavior self	258.20	1	258.20	3.09
Physical self	98.06	1	98.06	3.15
Moral-ethical self	99.59	1	99.59	2.43
Personal self	118.06	1	118.06	4.23 *
Family self	152.27	1	152.27	3.54
Social self	167.38	1	167.38	4.56 *

\*  $p < .05$ .

\*\*  $p < .01$ .





TABLE 6

## THREE-WAY ANALYSIS OF VARIANCE

PRE-POST SEX COMPARISON (MALES n=32, FEMALES n=44)

	<u>SS</u>	<u>DF</u>	<u>MS</u>	<u>F-ratio</u>
Total positive	2,558.08	1	2,558.08	5.27 *
Identity self	68.55	1	68.55	1.01
Judging self	.17	1	.17	.002
Behavior self	184.43	1	184.43	2.21
Physical self	44.75	1	44.75	1.44
Moral-ethical self	121.17	1	121.17	2.96
Personal self	73.47	1	73.47	2.63
Family self	27.90	1	27.90	.65
Social self	194.44	1	194.44	5.30 *

\*  $p < .05$ .



TABLE 7  
THREE-WAY ANALYSIS OF VARIANCE  
PRE-POST COMPARISON  
LEVEL (HIGH THIRD, MIDDLE THIRD, LOW THIRD)

	<u>SS</u>	<u>DF</u>	<u>MS</u>	<u>F-ratio</u>
Total positive	21,202.9	2	10,610.5	21.86 ***
Identity self	2,587.17	2	1,293.58	19.11 ***
Judging self	3,448.68	2	1,724.34	18.28 ***
Behavior self	2,704.30	2	1,352.15	16.21 ***
Physical self	1,115.79	2	557.90	17.91 ***
Moral-ethical self	591.36	2	295.69	7.20 **
Personal self	1,443.94	2	721.97	25.85 ***
Family self	1,676.21	2	838.10	19.41 ***
Social self	724.93	2	362.48	9.88 ***

\*\*  $p < .01$ .

\*\*\*  $p < .001$ .



TABLE 8

TWO-WAY ANALYSIS OF VARIANCE

PRE-TEST VS POST-TEST FOR

GROUP (EXPERIMENTAL, CONTROL) FOR MALES

	<u>SS</u>	<u>DF</u>	<u>MS</u>	<u>F-ratio</u>
Total positive	923.34	1	923.34	1.74
Identity self	380.84	1	380.84	3.41
Judging self	141.56	1	141.56	1.074
Behavior self	38.90	1	38.90	.40
Physical self	1.92	1	1.92	.044
Moral-ethical self	24.77	1	24.77	.51
Personal self	1.66	1	1.66	.03
Family self	29.58	1	29.58	.99
Social self	55.80	1	55.80	1.33

Note.  $F(1, 26) = 4.22, p < .05.$



TABLE 9  
TWO-WAY ANALYSIS OF VARIANCE  
PRE-TEST VS POST-TEST FOR  
GROUP (EXPERIMENTAL, CONTROL) FOR FEMALES

	<u>SS</u>	<u>DF</u>	<u>MS</u>	<u>F-ratio</u>
Total positive	4,445.24	1	4,445.24	9.80 **
Identity self	43.66	1	43.66	1.16
Judging self	1,068.14	1	1,068.14	11.29 **
Behavior self	381.78	1	381.78	5.15 *
Physical self	289.88	1	289.88	12.94 ***
Moral-ethical self	89.04	1	89.04	2.46
Personal self	150.19	1	150.19	9.12 **
Family self	164.14	1	164.14	3.14
Social self	96.29	1	96.29	4.88 *

\*  $p < .05$ .

\*\*  $p < .01$ .

\*\*\*  $p < .001$ .





measures.

From the analysis in this chapter one can conclude that a sex difference was in evidence in this treatment process for both Tot. P and the internal variables listed.

#### The Pre and Post Project Questionnaires (PPQ)

The PPQ was administered only to the experimental group. The results are listed in Appendixes E and F. This is a summary.

Educational plans. Eighty percent of the students indicated on both the pre and post questionnaires that they plan to finish high school. All students believe their parents want them to finish high school. Five more students, an increase from 23% to 36% indicated they plan to attend college or university. Six more students indicated after the project that they stand a better than average chance of obtaining a degree or diploma. It would appear then, that the majority of students do plan to get an increased level of education, but the knowledge and counseling of the C.E.P. may be responsible for increased confidence and thus raised sights for an increased number of students.

Occupational plans. Those who felt they were not well informed about different kinds of jobs dropped from 39% to



18%. The 'quite well' informed group increased by 20%. The number of students who claimed parents as the most assistance in occupational planning remained at one-third of the students on the PPQ. The assistance by a counsellor increased from 5 to 21%. At the end of the project students increased from 62 to 69% in being fairly "sure about what they will do as a career."

It would appear then, that the counsellor became more useful to the students in regards to career planning as well as providing increased information to assist in decision making.

The PPQ also listed 11 questions of worries that students may have about their future work, such as, "I worry about being turned down from getting a job." Table 10 illustrates a decrease in worries, comparing the pre-post responses. It would appear that the C.E.P. may have contributed to confidence levels of students in handling the future with less fear.

Career Maturity Inventory (attitude scale). Research cited in Chapter II has indicated that usually career exploration programs show statistically significant increases on the Career Maturity Inventory (CMI) (attitude scale). This was not the case in this research as is



TABLE 10

STUDENT RESPONSES ON 11 QUESTIONS ON THE P.P.Q.

## WORRIES ABOUT THE FUTURE

---

	Pre-test Sum	Post-test Sum	Difference
<hr/>			
Quite Worried	63	39	-14
A little bit worried	251	240	-11
Not at all worried	114	144	+30

---



illustrated in Table 11. Using raw scores, the total group increased nonsignificantly ( $t = .98$ ,  $p = .330$ ) as did males ( $t = 1.46$ ,  $p = .164$ ). Females remained the same ( $t = 0$ ,  $p = 1.0$ ).

Career Exploration Project Student Evaluation. The C.E.P. was evaluated favourably in the post-questionnaire. Eighty-five percent felt it was either 'somewhat' or 'definitely' helpful. Approximately 60% gave a similar rating to the C.E.P. compared to other procedures experienced. Two-thirds of the treatment group felt they now had more occupations from which to choose.

Students appreciated the opportunity to sit down with a counsellor, with 80% finding the counsellor helpful. Seventy-seven percent of the students felt they have decided, to some degree, about a future career, although 80% felt they have not decided for sure. An indicator of the popularity of the project were the answers to this question-- "In the future, do you think this project should be repeated?" These are the most frequently responded to options and the percent of the students responding:

Definitely yes--64%  
Somewhat yes --21%

Thus, 85% of the students who participated in the C.E.P.





TABLE 11

MEANS, STANDARD DEVIATIONS, AND PROBABILITIES,  
PRE-POST CAREER MATURITY INVENTORY (ATTITUDE SCALE)  
FOR WITHIN TREATMENT GROUP USING RAW SCORES

	Pre-test		Post-test		Probabilities of "T" for differ- ences between means
	$\bar{X}$	<u>S.D.</u>	$\bar{X}$	<u>S.D.</u>	
Total group	35.9	4.7	36.4	5.1	.336
Males	34.1	4.3	36.1	5.8	.164
Females	36.6	4.8	36.6	4.5	1.0



favoured the repeating of this project.

### Summary

This chapter has provided the statistical analysis of the research presented in this thesis. The following is a summary of the results pertaining to the questions presented in Chapter I.

Question 1. Will there be a statistically significant difference in the self-concept measure (Tot. P) of the TSCS for the experimental group compared to the control group?

As has been stated, the Career Exploration Project, as administered in Red Deer County, appeared to cause students to achieve for themselves a statistically significant increase in their total self-concepts as demonstrated by an increase in the total positive measure of the TSCS, for the total treatment group. When the groups were analyzed by sex, it was determined that females increased significantly but males did not increase significantly.

Question 2. Will there be statistically significant differences in each of the three divisions: identity, self satisfaction, and behavior; and each of the five subelves: physical self, moral-ethical self, personal self, family self, and social self for the experimental group as compared to the control group?



Table 12 summarizes the results for the total group, as well as for the separate analyses for both males and females. Statistically significant results were noted for the total groups in rows 1. identity self, 2. judging self, and columns C. personal self, and E. social self.

Females achieved significantly increased results for rows 2. judging self, 3. behavior self, and columns A. physical self, C. personal self, and E. social self. No statistically significant results were obtained for males.

Question 3. Are there changes in the experimental group in attitude, educational plans, occupation plans, ideas about work and the future, and orientation to school?

The within treatment group study yielded by the PPQ was summarized previously in this chapter. The highlights of that summary include more students planning to attend university or college, more usability of counsellors for career planning, and a decrease in personal worries. The CMI (attitude scale) yielded nonsignificant increases for the total group as well as males and females when considered separately.

A final evaluation section of the post PPQ indicated positive responses towards the project by the majority of students.



TABLE 12

A SUMMARY OF THE SIGNIFICANT RESULTS

ON THE TENNESSEE SELF CONCEPT SCALE

COMPARING EXPERIMENTAL AND CONTROL GROUPS

FOR PRETEST VS. POSTTEST

	Total Group	Males	Females
Total positive	.004 **	.199	.003 **
Identity self	.025 *	.076	.288
Judging self	.004 **	.310	.002 **
Behavior self	.082	.532	.029 *
Physical self	.081	.836	.0009 ***
Moral-ethical self	.124	.480	.125
Personal self	.044 *	.857	.005 **
Family self	.065	.329	.084
Social self	.036 *	.259	.033 *

\*  $p < .05$

\*\*  $p < .01$

\*\*\*  $p < .001$





## CHAPTER V

### CONCLUSIONS

#### Analysis and Interpretation

The last section of Chapter IV has summarized the statistical findings of this thesis. Comparing these findings with a study by Sankey (1975) leads to questions. His City Park Collegiate study did not have a statistically significant increased Tot. P. Possible differences may be due to two different variables: city students versus predominately rural students, and non-resident counsellors versus in-school counsellors. In the first instance, one can observe a difference in the means for rural females as compared to the city girls (See Table 13). While the males seem to be relatively similar, there are sizable differences noted for the rural females. The reasons for this can only be conjecture. Rural students tend to live in one place longer and appear to have closer family ties. Reasons such as these do not account for the similar measures for males and the sizable differences for females.

The other variable, non-resident versus in-school counsellors, may account for differences between our study and that of Sankey (1975). It is suggested that counsellors in our study were familiar to the students, thus the level



TABLE 13

## TENNESSEE SELF CONCEPT SCALE

TOTAL POSITIVE MEANS FOR EXPERIMENTAL AND CONTROL GROUPS

	City Park Collegiate C.E.P.		<sup>a</sup>	Red Deer County C.E.P.	
	<u>Pre-Scores</u>				
Males	326.51	(333.52)		317.4	(318.4)
Females	321.76	(324.96)		346.3	(330.7)
	<u>Post-Scores</u>				
Males	329.76	(332.16)		325.2	(319.3)
Females	325.44	(321.96)		358.6	(331.9)
	<u>Gains</u>				
Males	3.25	( -1.36)		7.8	( .9)
Females	3.68	( -3.00)		12.3	( 1.2)

Note. Figures in parenthesis are control group measures.

a

Data obtained from Sankey, 1975, p. 39.



of trust, which is so essential in the establishment of solid rapport with the students, seemingly could be reached more quickly in Red Deer County and thus potentially more progress could be made. As well, since the Red Deer County Schools are much smaller than the large city collegiates, it is possible that the rural students were exposed to the counsellors more frequently thus serving as a reinforcement for an ongoing process.

The second question in this thesis dealt with the eight internal variables of the TSCS. Changes were noted for females in areas that counselling occurred, namely, the 'personal self' and the 'social self.' A big difference lay with the 'physical self' where a very significant difference occurred for females ( $p < .001$ ) whereas practically no change occurred for males ( $p = .836$ ). One can only assume that females benefited much more in self acceptance from the counselling in accepting their physical beings compared to males.

No interpretation or analysis is made with the row measures due to the lack of research support for these measures (Gable et al., 1973; Vachianno & Strauss, 1968).

The author of this thesis views with satisfaction the acceptance of the C.E.P. by the students. Their suggestion



of the need to repeat this project for future grade ten students supports a need area. Students were not informed that this project was designed to specifically increase their self-concepts, but rather to provide information about themselves and relate that to careers. Thus it can be concluded that students see the need for vocational counselling in the Red Deer County schools after this project, particularly if it includes 'personalized' counselling sessions as exemplified by the C.E.P.

It would appear that the acceptance by the majority of students also supports the vocational development theory proposed by Super (1963, 1970). Students appreciated this type of intervention. As a result, the proposal of John Holland (1974) for counselling at one point in time only for those who request it, is not supported. As pointed out in Chapter I, this research did not set out to prove or disprove any particular theorist, although the C.E.P. is based on Super's theory for which there is support in this thesis.

### Implications

In a study of Canadian youth by Breton (1972) it was determined that school personnel, like parents, have a significant impact on vocational decision making. In his





study, students with poor chances of success in school along with high anxiety and a feeling of powerlessness about the future, lacked a career goal. The Career Exploration Project, then, appears to assist in helping students overcome part of this anxiety along with assisting in the establishment of career related goals. As a result, it would logically follow, students should progress better in school following exposure to the Career Exploration Project. That would be an area that could be pursued in future research.

The statistical findings in this thesis also lead to questions for which there may not be answers at this time. For example, why did females increase in self-concept while males did not? It is noted that females did start with higher means on the total positive self-concept measure. Does this mean that persons with higher measures will accelerate faster in self-concept development than those with lower scores? Does it mean that the C.E.P. is more responsive to females than to males? Or, since the majority of the counsellors on this project were males, was there a counsellor sex difference effect? On the other hand, perhaps females in our society are more concerned about security and the future, thus they have a vested interest



in getting the most out of the project.

One note of caution should be sounded, though,--this research was designed to ascertain the self-concept for the total group, not for the males and females taken separately. When the latter is done, the sample size (males,  $n = 16$ ; females,  $n = 23$ ) would be considered small for one to make generalized conclusions.

Thus, it can be concluded, this thesis, besides determining that self-concept can be increased through the Career Exploration Project, has also led to a number of questions that will require future research.

### Recommendations

Since the findings for the major question was positive, and due to the acceptance of the project by administrators, counsellors, teachers, and students, then a series of recommendations are presented. Some of the recommendations are based on the convictions of the author from his experience in guidance and counselling over the past ten years. Others, are made to reinforce recommendations presented by Sankey (1974, 1975).

The recommendations are made based on the following assumptions:



1. The role of schools is to prepare young people for the increasingly complex world ahead of them.

2. Work, despite increased North American unemployment and welfare, will still play an important part in peoples' lives.

3. Many students are unaware of their actual interests, abilities, and needs.

4. Some students underestimate their abilities which means they aspire for less than their potential.

5. Some students have difficulty handling authority and thus limit their future education and training in institutions that appear to be authoritarian. Self understanding in this area should help the student better control his behavior.

6. Many students feel that they are a failure in school not realizing that they probably have some areas of strength for which there are routes that will bring success either now or in the future.

7. Guidance programs in our schools are helpful, but are in need of new materials, techniques, and priorities.

8. Many students in our schools benefit from improving their self-concepts. Their behaviors are more intentioned and predictable. Their attitudes toward school,



teachers, and significant others subsequently improve.

They are better able to interpret and cope with the pressures of living with themselves and others.

#### Recommendation 1

After USSR shot Sputnik into outer space North America geared for an age of technology. Science and industrial pursuits came first; the individual was of secondary importance. As a result, a reaction was felt in schools as exemplified by school walkouts and a cry for representative government. A resultant political cry for a 'just society' for the individual was also heard. Rebellion soared against authority and the plight of parents became frantic as young people turned to LSD and other drugs. Now in the late 1970s, people have realized that science and technology have solved some problems, but have created others. This plus increased leisure time gives people time to think and ask, "Who am I?" Schools are increasingly subjected to pressures to change their curricula such that students can answer the question from a success orientation rather than as a failure.

At the same time, marriage breakdown, crime, and mental instability is increasing. Community colleges and





universities are responding to this need by offering more courses of the know yourself variety. Dreikur's parenting groups, transactional analysis, and meditation plus an up-surge in sports participant programs name only a few of the responses to the needs to develop and understand the self. Our school systems similarly need to respond in their curricula to meet the needs of the late 1970s. The Career Exploration Program can be considered one contributor to self knowledge fitting into a much broader program.

It is recommended that schools offer a K-12 program of life skills designed to assist young people define themselves in relation to others.

Such a program would incorporate the concept of Super (1970) that the role as teachers, counsellors, and parents is to assist the child with experiences that help him 'make a life.'

#### Recommendation 2

Included in the life skills program would be needed understandings of our society such as knowing the use of and being able to relate to legal, medical, and social institutions. However, since the role of work is likewise important,



It is recommended that a program of career guidance be compulsory for all students as a part of an overall life skills program. That the emphasis be developmental in nature, exploratory in grade ten leading to assistance in actual decisions in grade 12.

#### Recommendation 3

Since unemployment is highest amongst untrained, school dropouts, and since self-knowledge courses occur after grade nine and ten, too late for the person that does not graduate,

It is recommended a program be developed and implemented for potential dropouts, such that in the event of their dropping out, they are equipped with the life skills necessary to cope with society, including work.

#### Recommendation 4

Since the present university programs at the undergraduate levels train teachers in diverse subject areas, and since life skills and 'personalized' guidance programs such as the C.E.P. require a set of skills,

It is recommended that a major field in the completion of the Bachelor of Education degree be one of counsel-



ling or life skills teacher. That the program be assessed not only on academic merit, but also on the basis of ability to relate to youth.

Such a program could also incorporate a 'Family Life' component to equip the teacher to meet the demand of self-knowledge courses.

#### Recommendation 5

The research in this thesis has led to a number of questions. Some include the self-concept differences between males and females; others, the credibility of the research tools currently available. Yet, administrators in a recent workshop in Red Deer County stated that they consider the affective needs of the students must come ahead of the academic requirements of the school. Yet, these same administrators admit the need for programs and skills to increase improved self-concept along with changing behavior.

It is recommended that an active program of research into how to increase students' understanding of themselves and others be instrumented through funding provided by the Department of Education, The Alberta Teachers' Association, and the Alberta School Trustees' Association.



### Recommendation 6

Since the success of any new program requires community support,

It is recommended a representative committee be established to investigate the above recommendations in each school jurisdiction in our province.

Such a committee should encompass the general population, namely parents, students, employers, and employees, as well as groups with areas of expertise such as industrial personnel managers, Canada Manpower and personnel, university specialists, and school administrators.

That is the end of the recommendations. This chapter now closes with a summary of the study.

### Summary

This study has examined self-concept change following the administration of a Career Exploration Project. The project was well accepted by students. An increase of self-concept as measured by the total positive measure of the Tennessee Self Concept Scale, was statistically significant. A subsequent analysis of this measure for males and females taken separately demonstrated significance for females only. This led to the recommendation for further





research with a larger sample of both males and females to determine if there is a sex difference as indicated in this research.

#### Limitations of the Study

This project reported the results of the pre-post questionnaire including the Career Maturity Inventory (attitude scale) for within treatment group only. While the main intent of this thesis was to examine the self-concept, the reporting of vocational maturity would have been more conclusive if the control group had also been administered the inventory, thus allowing a comparison with a similar yet, non-treatment group. A subsidiary study could have also been done to determine if there was a relationship between the TSCS and the CMI (attitude scale). This will have to be left to future research.



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## APPENDIX A

## CAREER EXPLORATION QUESTIONNAIRE



## CAREER EXPLORATION QUESTIONNAIRE

Registration Number \_\_\_\_\_ (To be supplied by counsellor)

CCDO (New) Program

Card Sequence # 6

School \_\_\_\_\_

Name \_\_\_\_\_

Coding

1-4

5

NC

6-29

1. (GED) What grade do you plan to complete in school? (Check only one of the following.)

30

- ☐ (1) Complete up to Grade 6  
☐ (2) Complete up to Grade 8  
☐ (3) Complete up to Grade 10  
☐ (4) Complete Grade 11  
☐ (5) Complete Grade 12

2. (SVP) How much additional training time are you willing to spend on the job, or apprenticing, or at a business college, technical institute, or university?

31

NOTE: An apprenticeship program usually requires 2 to 4 years to complete, and a technologist requires 1 to 2 years of training. (Check only one of the following.)

- ☐ (1) Short demonstration only  
☐ (2) More than a short demonstration, up to and including 30 days  
☐ (3) Over 30 days, up to and including 3 months  
☐ (4) Over 3 months, up to and including 6 months  
☐ (5) Over 6 months, up to and including 1 year  
☐ (6) Over 1 year, up to and including 2 years  
☐ (7) Over 2 years, up to and including 4 years  
☐ (8) Over 4 years, up to and including 10 years  
☐ (9) Over 10 years



DO NOT ANSWER QUESTIONS ON THIS PAGE. MOVE ON

3. (ATTITUDE)

G.A.T.B. TEST SCORES. Examiner will provide information.

Q	1	(2)	3	4	5
K	1	2	3	(4)	5

The person above indicated that he attained level 2 in the Q test and level 4 in the K test.

G	1	2	3	4	5	32
V	1	2	3	4	5	33
N	1	2	3	4	5	34
S	1	2	3	4	5	35
P	1	2	3	4	5	36
Q	1	2	3	4	5	37
K	1	2	3	4	5	38
F	1	2	3	4	5	39
M	1	2	3	4	5	40
E	1	2	3	4	5	41

4. (COLOR DISCRIMINATION)

Examiner will indicate presence or absence of ability to discriminate color.

42

- ☐ (1) Has color discrimination ability
- ☐ (2) Has some difficulty discriminating color



5. (STRENGTH) The physical demands required of workers in different occupations vary. Indicate the comfortable physical work (lifting, carrying, pushing, pulling) you are capable of doing over a long period of time. (Check only one of the following.) 43
- ☐ S Sitting and lifting 10 lbs maximum and occasionally lifting and/or carrying small objects. (Could do this work in a wheelchair.)
- ☐ L Lifting 20 lbs. maximum with frequent lifting and/or carrying of objects weighing up to 10 lbs.
- ☐ M Lifting 50 lbs. maximum with frequent lifting and/or carrying of objects weighing up to 20 lbs.
- ☐ H Lifting 100 lbs. with frequent lifting and/or carrying of objects weighing up to 50 lbs.
- ☐ V Lifting in excess of 100 lbs. with frequent lifting and/or carrying of objects weighing 50 lbs. or more.
6. (PHYSICAL ACTIVITIES) Indicate which, if any, of the following would cause you serious difficulty, if you were required to carry them on frequently on the job. (Check one, two or more of the following. If none, leave all boxes blank.) 44
- ☐ (2) Climbing and/or balancing 44
- ☐ (3) Stooping, kneeling, crouching and/or crawling 45
- ☐ (4) Reaching, handling, fingering and/or feeling 46
- ☐ (5) Talking: expressing and exchanging ideas with others 47
- ☐ (6) Hearing what is said by others 48
- ☐ (7) Seeing clearly at a distance of 20 feet or more and/or seeing clearly at a distance of 20 inches or less. (Do not check if vision can be corrected by glasses.) 49
7. Many occupations require you to work mostly indoors, other occupations make it necessary to work mostly outdoors, still others require both inside and outside work. (Check one of the following.) 50
- ☐ I Inside: You prefer to spend 3/4 or more of your time working indoors.
- ☐ O Outside: You prefer to spend 3/4 or more of your time working outdoors.
- ☐ B Both: You prefer to spend 1/2 of your time working indoors and 1/2 of your time outdoors.





8. (ENVIRONMENTAL CONDITIONS) Many occupations require the worker to spend some time working under rather adverse conditions of weather, noise, body hazards (injury), fumes and dust. Indicate which of the following you would not be prepared to accept as part of your future working situation. (Check one, one, two or more of the following. If none, leave all boxes blank.)

- |   |    |
|---|----|
| <input type="checkbox"/> (2) Working under conditions of extreme cold and rapid temperature change to the point where it would cause body discomfort.                                     | 51 |
| <input type="checkbox"/> (3) Working under conditions of extreme heat and rapid temperature change to the point where it would cause body discomfort.                                     | 52 |
| <input type="checkbox"/> (4) Working under wet and/or humid conditions to the point where moisture content is high enough to cause body discomfort.                                       | 53 |
| <input type="checkbox"/> (5) Working under conditions in which there is a good deal of noise and/or vibration which could cause bodily injury if you had to put up with it day after day. | 54 |
| <input type="checkbox"/> (6) Working under conditions in which there is a definite risk of bodily injury.   | 55 |
| <input type="checkbox"/> (7) Working under conditions in which there is a good deal of dust, fumes, odors and poor ventilation.   | 56 |



9. (INTERESTS) From the list of activities below, check the five that you would most prefer to have as part of your future work. It is important that you check five activities.

- ☐ (1) You would prefer working with things and objects.
- ☐ (2) You would prefer working with people in a business-like manner.
- ☐ (3) You would prefer routine, concrete and organized work.
- ☐ (4) You would prefer helping others who may be in difficulty.
- ☐ (5) You would prefer work which makes you feel important.
- ☐ (6) You would prefer work which requires you to be knowledgeable about others and make ideas known to people.
- ☐ (7) You would prefer scientific and technical work.
- ☐ (8) You would prefer working with ideas and creating new things.
- ☐ (9) You would prefer working alone in relation to machines, processing materials, and applying techniques.
- ☐ (10) You would prefer work which gives satisfaction through producing something that can be seen.

In order of preference to you, would you now please arrange your above choices in the following boxes.

For example: If a student's first choice was activity #3, second choice activity #2 followed by activities #7, #5, and #9 in order of choice he would indicate:

- ☐ 3 First choice
- ☐ 2 Second choice
- ☐ 7 Third choice
- ☐ 5 Fourth choice
- ☐ 9 Fifth choice

As shown in the example above, would you arrange your choices in the following boxes.

- ☐ First choice
- ☐ Second choice
- ☐ Third choice
- ☐ Fourth choice
- ☐ Fifth choice

57

53

59

60

61



10. (TEMPERAMENTS) Different occupations call for different personal qualities or characteristics. From the following list of work situations, check the six which best match with your personal qualities, as you see them. It is important that you check six preferences.

- ☐ (1) Work in which there would be a variety of tasks and frequent change.
- ☐ (2) Work which would be repetitive, doing the same things over and over again.
- ☐ (3) Working under a boss who told you exactly what to do.
- ☐ (4) Directing and controlling the work of others, being a supervisor or boss.
- ☐ (5) Work which would involve you very much with other people.
- ☐ (6) Working on your own, away from other people.
- ☐ (7) Work in which you could influence other people's opinions and judgments about ideas and things.
- ☐ (8) Work in which you would be faced with stress and the unexpected or taking risks.
- ☐ (9) Work in which you would have to make important decisions based on your own judgments and ideas.
- ☐ (10) Work in which you would have to make important decisions based on things that can be seen and measured.
- ☐ (X) Work in which you would have to understand and interpret the feelings and ideas of others.
- ☐ (Y) Work in which you would have to be very exact and precise, be very careful to do the job exactly as required.

In order of importance to you, would you please arrange your above choices in the following boxes.

- |  |    |
|--|----|
| <input type="checkbox"/> First choice (most important to you)      | 62 |
| <input type="checkbox"/> Second choice (2nd most important to you) | 63 |
| <input type="checkbox"/> Third choice                              | 64 |
| <input type="checkbox"/> Fourth choice                             | 65 |
| <input type="checkbox"/> Fifth choice                              | 66 |
| <input type="checkbox"/> Sixth choice.                             | 67 |



11. Indicate whether you are:

- ☐ M Male  
☐ F Female

68

12. Do you play a musical instrument or sing?

- ☐ Y Yes  
☐ N No

69

13. In many occupations there is a need to be able to do drawing, painting, crafts, designing and possibly sculpturing. How do you compare to others in this ability? (Check one of the following.)

- ☐ Y Top 1/3  
☐ N Not in top 1/3

70





14. In the following nine questions would you estimate how you compare to other people of your age.

- A. How well do you compare with others in your general learning ability? How well do you "catch on" to ideas -- sometimes closely related to how well you do or did in high school. (Check one of the following.) 71
- ☐ i. Top 10%
- ☐ ii. Top 1/3 but not top 10%
- ☐ iii. Middle 1/3
- ☐ iv. Bottom 1/3 but not bottom 10%
- ☐ v. Bottom 10%
- B. How well do you compare with others in your ability to read and understand whole sentences and paragraphs in books and magazines, to express ideas in sentences, paragraphs and essays? (Check one of the following.) 72
- ☐ i. Top 10%
- ☐ ii. Top 1/3 but not top 10%
- ☐ iii. Middle 1/3
- ☐ iv. Bottom 1/3 but not bottom 10%
- ☐ v. Bottom 10%
- C. How well do you compare with others in your ability to work with numbers? How well are you able to perform arithmetic operations quickly and accurately. (Check one of the following.) 73
- ☐ i. Top 10%
- ☐ ii. Top 1/3 but not top 10%
- ☐ iii. Middle 1/3
- ☐ iv. Bottom 1/3 but not bottom 10%
- ☐ v. Bottom 10%
- D. How well do you compare to others in your ability to visualize shapes in space? This ability is used in blueprint reading and solving geometric problems; the ability to see objects in two or three dimensions as in drafting. 74
- ☐ i. Top 10%
- ☐ ii. Top 1/3 but not top 10%
- ☐ iii. Middle 1/3
- ☐ iv. Bottom 1/3 but not bottom 10%
- ☐ v. Bottom 10%



- E. In many occupations it is important to detect slight differences in shapes, shadings or pictures, widths and lengths of lines, flaws in cloth, and slight imperfections in machine parts. How do you compare to others with respect to this ability? 75
- ☐ i. Top 10%
- ☐ ii. Top 1/3 but not top 10%
- ☐ iii. Middle 1/3
- ☐ iv. Bottom 1/3 but not bottom 10%
- ☐ v. Bottom 10%
- F. In many occupations there is a need to be able to quickly check numbers and words for accuracy as in proof-reading. How do you compare to others in this ability? 76
- ☐ i. Top 10%
- ☐ ii. Top 1/3 but not top 10%
- ☐ iii. Middle 1/3
- ☐ iv. Bottom 1/3 but not bottom 10%
- ☐ v. Bottom 10%
- G. In many sports and occupations there is a need to coordinate eye and hand movements. For example, it is important in dribbling a basketball, hitting a golfball, sewing by hand. How well do you compare to others in this ability? 77
- ☐ i. Top 10%
- ☐ ii. Top 1/3 but not top 10%
- ☐ iii. Middle 1/3
- ☐ iv. Bottom 1/3 but not bottom 10%
- ☐ v. Bottom 1/3
- H. In many occupations there is a need to handle small objects rapidly and accurately. For example, it is important in taking an alarm clock apart and putting it back together, loosening and tightening small nuts and bolts which are concealed from view, fine sewing, crocheting. How do you compare to others in this regard? 78
- ☐ i. Top 10%
- ☐ ii. Top 1/3 but not top 10%
- ☐ iii. Middle 1/3
- ☐ iv. Bottom 1/3 but not bottom 10%
- ☐ v. Bottom 10%



- I. In many occupations and sports there is a need to move hands skillfully, accurately and easily. For example, catching and throwing a ball, shooting a basketball, throwing darts, handling small tools (wrenches, pliers), hand mixing of food and weaving. How do you compare to others in this regard?

79

- ☐ i. Top 10%
- ☐ ii. Top 1/3 but not top 10%
- ☐ iii. Middle 1/3
- ☐ iv. Bottom 1/3 but not bottom 10%
- ☐ v. Bottom 10%



Registration Number \_\_\_\_\_ (To be supplied by counsellor)

1-4

Card Sequence # 7

5

15. From the list of occupations supplied, choose 10 occupations for which you feel capable of training and would like to engage in for a good portion of your life. In the spaces provided below, list these occupations in order of preference, by name and number. Choose the one out of the 10 you feel most suited for and write its name and number in the first position, then write in your second choice and so on until you have listed all 10 in order. Take special care to see that the number is correct.

	Name of Occupation	Number of Occupation	
1st Choice	_____	_____	6-12
2nd Choice	_____	_____	13-19
3rd Choice	_____	_____	20-26
4th Choice	_____	_____	27-33
5th Choice	_____	_____	34-40
6th Choice	_____	_____	41-47
7th Choice	_____	_____	48-54
8th Choice	_____	_____	55-61
9th Choice	_____	_____	62-68
10th Choice	_____	_____	69-75





ATTENTION: For your convenience you may wish to tear these pages off for ease in your selecting, ordering, and transferring of the 10 occupations

NUMBER	OCCUPATION	NUMBER	OCCUPATION	NUMBER	OCCUPATION
1171-114	Accountant	7715-110	Blaster	1145-110	Construction Contract
3335-110	Actor or Actress	8581-206	Body-Repairman Helper	8798-114	Construction Worker
2169-114	Aerial-Photo Analyst	8337-110	Boilermaker	6121-114	Cook
1119-158	Agricultural Rep	9517-110	Bookbinder	6121-134	Cook, Helper
2131-110	Agriculture Scientist	4131-114	Bookkeeper	6115-130	Correctional Officer
8733-114	Air-Conditioning Mech	4141-110	Bookkeeping-Mach Oper	2391-114	Counsellor Gen
9113-118	Air-Traffic Control	9153-122	Brakeman, Pass Train	9311-000	Crane Operator
8582-110	Aircraft Mechanic	8782-110	Bricklayer	1171-210	Credit Officer
8515-118	Airframe Assembler	8711-126	Bulldozer Operator	3351-150	Critic
9111-118	Airplane Pilot	6198-122	Bus Boy or Girl	2350-110	Curator Museum
3139-130	Ambulance Attendant	9171-110	Bus Driver	1116-126	Customs Inspector
7199-000	Animal Care Attendant	5191-110	Buyer	8223-000	Dairy Products Worker
2313-110	Anthropologist	8541-110	Cabinetmaker	3333-114	Dancer
5172-110	Appraiser, Real Estate	8229-422	Cannery Worker	9155-122	Deck-Hand
2141-110	Architect	6125-118	Car Hop	3157-114	Dental Assistant
2165-114	Architectural Tech	8781-110	Carpenter	3157-110	Dental Hygienist
2792-118	Art Teacher School	4133-118	Cashier	3157-138	Dental Lab Technician
7199-184	Artificial Breeder	6133-114	Chambermaid	3113-134	Dentist
3311-110	Artist, Pictorial	2117-110	Chemical Technol	8137-174	Die-Casting Mach Oper
8713-182	Asphalt Layer, Road	2111-000	Chemist	8584-382	Diesel Mechanic
2113-114	Astronomer	3117-110	Chiropractor	3152-122	Dietitian
3713-110	Athlete, Pro	2165-122	Civil-Engineer Tech	3330-158	Director, Radio TV
5149-110	Auctioneer	4192-110	Claim Adjuster	4199-114	Dispatcher Govt Serv
8581-142	Auto-Body Repairman	3313-134	Clothes Designer Pro	3154-110	Dispensing Optician
6147-110	Babysitter	3313-135	Clothing & Fashion Tech	6199-110	Diver
6155-110	Baggage Porter	3710-142	Coach, Amat Athletics	5141-110	Door-to-Door Salesman
8213-114	Baker	4191-000	Collector	2163-000	Drafting Technol
8213-218	Baker Helper	3314-118	Commercial Artist	7713-154	Driller Helper, Water
1135-114	Bank Manager	5133-000	Commercial Traveller	2797-146	Driving Instructor
6143-000	Barber/Hairdresser	4143-110	Computer Operator	8784-126	Dry-Wall Applicator
6123-110	Bartender	2193-000	Computer Programmer	6163-110	Drycleaner
2135-134	Biological Sci Tech	8783-122	Concrete Finisher	4141-146	Duplicating Mach Oper
2133-000	Biologist	6119-110	Conservation Officer	2311-000	Economist



8531-000	Elec Equip Assembler	8795-122	Glass Installer	3351-154	Literary Writer
8533-110	Electrical Repairman	1113-000	Gov't Administrator	8589-146	Locksmith
8733-122	Electrician	8226-118	Grader, Meat	9131-110	Locomotive Engineer
2165-130	Electronic Eng Tech	1175-114	Grain Elevator Agent	7513-122	Logger, All-Round
8143-114	Electroplater, Metal	8226-138	Grain Inspector	9313-110	Longshoreman
2731-110	Elem School Teacher	8211-126	Grain Miller	8315-122	Machine-Tool Oper
8799-114	Elevator Repair, Elec	8589-122	Gunsmith	8313-000	Machinist
6141-114	Embalmer	8711-110	Heavy-Equip Operator	4173-000	Mail & Postal Clerk
214B-215	Engineer (Prof Any)	9111-126	Helicopter Pilot	113-114	Manager/Administrator
2143-130	Environment Engineer	2319-114	Historian	9153-114	Marine Engineer
6199-114	Exterminator	2319-126	Home Economist	7311-114	Mate, Fishing Vessel
7181-110	Farm Labor, General	1130-114	Hospital Admin	9151-114	Mate, Ship
8584-330	Farm-Equip Mechanic	4194-110	Hotel Clerk	2181-000	Mathematician
8523-138	Farm-Mach Assembler	3719-114	Hunting & Fishing Guide	8215-114	Meat Cutter
7113-126	Farmer, Beef Cattle	3159-134	Inhalation Therapist	2165-142	Mechanical Eng Tech
7115-122	Farmer, Grain	1176-000	Inspector, Non-Gov't	3156-122	Medical Lab. Tech Rt
7113-118	Farmer, Poultry	3710-130	Instructor, Phys Trng	4161-110	Medical-Record Librar
8211-134	Feed Mixer	8588-118	Instrument Repairman	4177-118	Messenger
6111-126	Fire Fighter	8786-000	Insulation Worker	2114-000	Meteorologist
7311-114	Fire Lookout	3313-115	Interior Design Tech	4199-234	Meter Reader
8217-130	Fish Cleaner/Cutter	3313-114	Interior Design/Decor	8584-122	Millwright Ind Mech
8713-126	Flagman	6191-110	Janitor	8116-116	Mineral Sampler
8799-153	Floor Layer	8591-122	Jeweller	2511-110	Minister
3319-230	Florist (Retail)	3713-118	Jockey	5193-122	Mobile-Canteen Driver
3159-170	Food Serv (Diet) Tech	2341-110	Judge	5199-126	Model
1119-110	Foreign-Serv Officer	4143-134	Key-Punch Operator	9557-110	Motion-Pic Projection
9900-000	Foreman	7718-110	Labourer, General, Mine	8581-110	Motor-Vehicle Mechan
2139-110	Forester (Prof)	7195-146	Landscape Worker	2792-114	Music Teach Sch Pand
7511-110	Forestry Tech	6161-114	Laundry Worker	8599-218	Musical-Inst. Repair
8331-138	Forging-Press Oper	2343-110	Lawyer	5332-130	Musician, Instrumental
8148-118	Foundry Worker	8589-158	Leather Worker	5143-000	Newsboy
6141-110	Funeral Director	4172-110	Letter Carrier	3135-110	Nurse Aide
8799-122	Furnace Inst/Repair	2551-114	Librarian	3131-131	Nurse Gen Duty Diplom
8131-186	Furnace-Oper Helper	4161-118	Library Clerk	3131-130	Nurse Gen Duty Degree
8555-000	Furrier	2353-134	Library Tech	3131-118	Nurse Public Health
8165-146	Gas-Plant Operator	8731-114	Lineman, Elec Power	3134-110	Nursing Assistant
4197-130	General Office Clerk	8735-138	Lineman, Telephone	2793-118	Nursing Instructor
2319-110	Geographer	9511-122	Linotype Operator	3137-118	Occupational Therapy
2112-000	Geologist	8227-266	Liquor Blender	8385-118	Office-Mach Serv Man



7711-000	Oil Driller	3131-138	Psychiatric Nurse	4153-118	Shipping/Receiv Clerk
9157-110	Oiler Marine	3111-162	Psychiatrist	8561-114	Shoe Repairman
8375-210	Optician	2315-110	Psychologist, Gen.	3319-114	Sign Painter
3153-110	Optometrist	1179-146	Public Relations	3332-154	Singer Concert
3135-114	Orderly	8256-118	Pulp Tester	8215-000	Slaughter House Work
1173-000	Organ/Methods Analyst	8251-000	Pulp & Paper Worker	2335-118	Social Service Assist
8592-206	Outboard-Motor Mechan	9537-150	Pumper, Oilfield	2331-000	Social Worker
9318-142	Packager Hand	1175-110	Purchasing Officer	2313-114	Sociologist
8785-110	Painter Construction	9159-110	Purser	9555-000	Sound/Video Equip. Op.
8785-122	Painter Helper	3337-000	Radio & TV Announcer	3137-114	Speech Therapist
8595-114	Painter Motor Vehicle	8583-000	Rail Transport Mechan	9533-000	Stationary Engineer
6199-122	Parking-Lot Attendant	7187-126	Ranch Worker	4111-118	Stenographer
2331-118	Parole Officer	6112-150	RCMP	6145-118	Stewardess, Airline
8595-000	Pattern/Mould Maker	2333-110	Rec Director Degree	4155-000	Stock Clerk
8295-118	Pelt Dresser	4171-118	Receptionist	8793-114	Structural Steel Work
1174-118	Personnel Officer	2333-122	Recreational Technol	8225-000	Sugar Processing Work
3151-118	Pharmacist	2135-272	Renew Resources Tech	1133-138	Superintendent, Educ.
9591-000	Photo Dark-Room Work	8535-114	Repairman, Electronic	3111-146	Surgeon General
9515-000	Photograver	3331-174	Reporter	3139-110	Surgical Ast/O.R. Tech
3315-110	Photographer, General	214A-215	Research & Design Eng.	2161-118	Survey Technol
2799-116	Phys Ed Teacher	8787-126	Roofor Helper	2161-114	Surveyor (Prof)
3111-166	Physician Gen Pract	8579-174	Rubber Footwear Maker	2161-122	Surveyor Helper
2113-000	Physicist	5135-000	Salesman Re-rail	8553-000	Tailor & Dressmaker
3137-122	Physiotherapist	5171-118	Salesman, Insurance	9173-110	Taxi Driver
8599-272	Piano Tuner	5174-122	Salesman, Radio TV Time	2353-118	Taxidermist
8791-122	Pipefitter, Gas	5172-118	Salesman, Real Estate	2799-122	Teacher Assistant
8573-118	Plastics-Press Oper	5135-126	Salesperson, Parts	2792-126	Teacher, Dancing
8791-114	Plumber	8739-000	Sask. Powerman	2795-000	Teacher, Special Educ
8233-000	Plywood Worker	8231-000	Sawmill Worker	5151-000	Technical Salesman
6112-159	Policeman, City	3353-122	Script Writer	4175-000	Telephone Operator
6112-162	Policewoman	3311-114	Sculptor	3315-178	Television Cameraman
1115-114	Postmaster	2733-000	Secondary Sch Teacher	4133-110	Teller
8155-114	Potter	4111-110	Secretary	9111-110	Test Pilot
9531-000	Power Station Oper	5173-110	Securities Trader	8526-000	Tester, Metal Products
8155-358	Precast-Concrete Work	6115-158	Security Guard	8311-110	Tool & Die Maker
1133-142	Principal	5145-110	Service Station Atten	8715-142	Track Repairman
9512-000	Printing Press Oper	8799-238	Sewer-Pipe Cleaner	7187-110	Trainer, Racehorse
3330-118	Producer, Radio TV	8563-114	Sewing-Machine Oper	3355-122	Translator
2119-118	Prospector	8333-118	Sheet-Metal Worker	7315-110	Trapper





4193-122	Travel Clerk
7518-122	Tree Planter
7195-110	Tree Surgeon
9175-110	Truck Driver General
9151-126	Tugboat Captain
9551-000	TV Equip Operator
8537-110	TV Repair Serviceman
4115-126	Typist
2711-000	University Teacher
8562-110	Upholsterer, All Round
3115-110	Veterinarian
3159-186	Veterinary Assistant
2791-000	Vocational Sch Teach
6125-126	Waiter/Waitress
8587-110	Watch Repairman
2117-244	Water Sciences Tech
8335-133	Welder, Arc & Gas
1119-166	Welfare Worker
8355-110	Woodworking Mach Oper
3155-114	X-Ray Tech Radiology



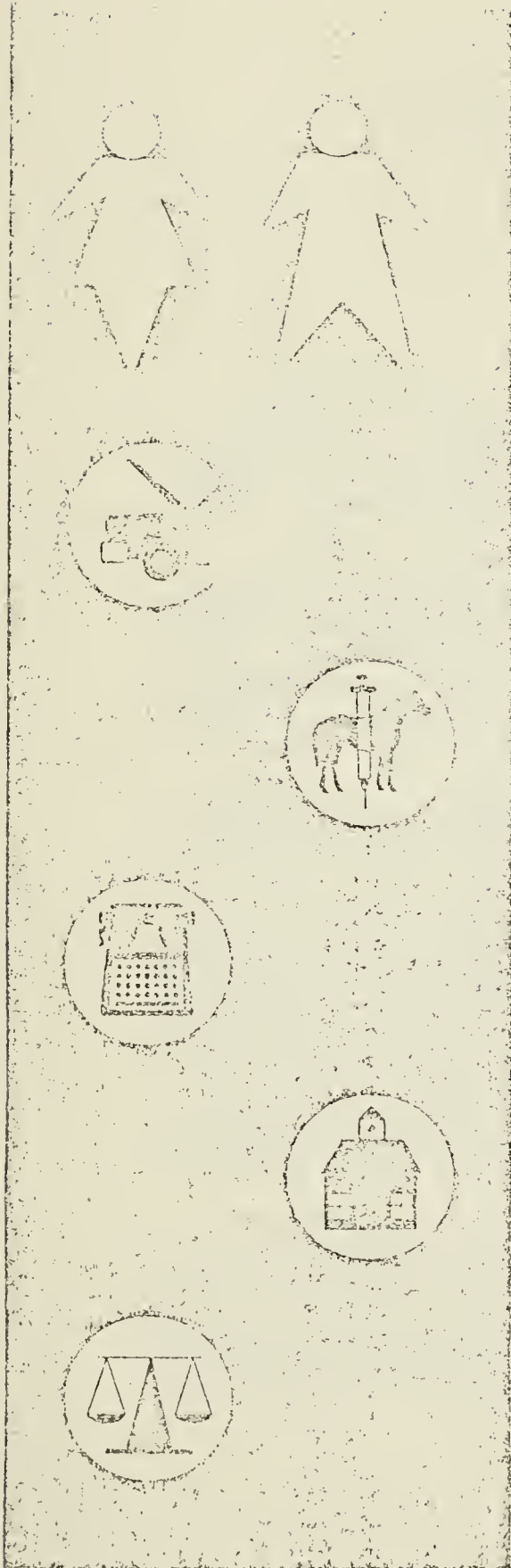


APPENDIX B \*

FOLIO OF DATA FOR STUDENT 'X'

\* The folio used in this Red Deer County Study used the Kuder Interest Test instead of the Canadian Occupational Interest Inventory (COII). The pages used with the Kuder are inserted in this folio after pages explaining the COII. The COII was not available for use.





# CAREER EXPLORATION PROJECT

County of Red Deer No. 23



## CAREER EXPLORATION PROJECT

\*\*\*\*\*

Dear Student X,

At this time of year many of you are faced with important decisions. Should I take this program or that one? Should I become a lawyer, grain farmer, a stenographer, chef, ...? After high school should I go directly into work, apprenticeship, school of technology or university?

In an attempt to answer these questions, you will have to obtain answers to some other rather important questions. What kind of person am I? What are my interests or abilities? What do I consider important in my future occupation (high pay, steady job, variety ...)? How do I feel about taking more training after high school? Indeed, you will be able to make better occupational choices when you understand yourself more fully. In order to gather this self information, you were given tests in the areas of interests, aptitudes, and work values or needs. Also you were supplied with a computer printout listing many occupational possibilities. At this time we would like you to study this information rather carefully.

The first type of information resulting from an interest test (Kuder Preference Record for Grade X and Strong Vocational Interest Blank for Grade XII) provides a stocktaking function. This brings to your attention information you possess but perhaps have not thought about. These results will provide a good place to begin self analysis, because one is usually satisfied with his interests. What are interests? Simply, interests are activities which one likes to engage in. Indeed, programs and occupations chosen in keeping with one's interests will usually produce fewer educational and occupational misfits. In looking over the profile you are encouraged to consider both high and low interest areas. For example, a boy who scored highly on mechanical and low on artistic interests might well be advised to consider educational programs and occupations stressing mechanical activities, and at the same time be somewhat cautious about selecting those requiring artistic interests. In addition, it is important to note that high interest does not guarantee success in that area. As will be seen, success in an area is not the result of interest alone but the product of many factors such as aptitudes, proven achievement, drive, availability of training, study habits, and attitudes toward education.

The General Aptitude Test Battery provides another source of information which will be helpful to you in educational and occupational planning. These test results attempt to measure many types of aptitudes. What is an aptitude? Simple, an aptitude is the ability to learn in certain areas. For example, an above average score (1 or 2) in spatial relations would indicate that a student has the capacity to learn ideas which involve spatial relations (drafting, etc.). However, such a score does not imply that this student will be successful in drafting or art. Success in these areas would also depend on taking training in these areas as well as interest, drive, etc.



In addition to interests and aptitudes, the Work Values Inventory for Grade X and the Needs Preference Inventory for Grade XII will be helpful in identifying satisfaction or needs which you consider important in your future work setting. For instance, an individual may be attracted to farming because it allows him the satisfaction of becoming his own boss. Another may consider becoming a travelling salesman because he feels the need for variety in his work. The need for job security and the need to help others may cause individuals to consider teaching as a career. As previously indicated, success in an area depends not only upon having certain satisfactions or needs met in an occupation but also having the necessary interests, drive, aptitudes, etc.

Your study habits, your attitude toward teachers and education in general can influence your educational and occupational progress. It has been found that some students who are average in ability have been successful in institutions of higher learning because of good work habits and positive attitudes towards their instructors and further education. On the other hand, it is common knowledge that some students having superior abilities have failed because of poor study habits and attitudes.

Your past school achievement also should be considered in planning for the future. For example, a student who is doing poorly in science and mathematics should be cautious about proceeding into occupations which require abilities in these areas. In addition, admission officers in post secondary school institutions tell us that high school marks provide one of the best single means for predicting success. For instance, a student who has an average of 75 or better (in English, Social Studies, Mathematics, and Science) will probably be successful in most training programs after high school. Also it is common knowledge that students with lower averages have been successful at institutions of higher learning. These latter students, though fewer in number, usually have the benefit of strong motivation and good work habits. However, in training for trades (for instance, carpentry, autobody, welding, etc.) past school achievement may not be quite as important.

In order to avoid becoming an educational and occupational misfit, it is important that you attempt to make your plan: considering at least the factors mentioned previously. The computer printouts listing occupations will provide you with some suggestions which you might want to explore further.

It is our considered opinion that the process of acquiring self understanding and planning, though time consuming, pays off in terms of fulfillment and satisfaction in the world of work. Happy is the man who looks forward to his work.

We will not wish you good luck in your occupational future because we believe success in this area is more the product of good planning than luck.

Your counsellor,

Counsellor Y





Name: X Student Number: XXXX Level: 10  
Surname Given Name

# CANADIAN OCCUPATIONAL INTEREST INVENTORY

What is an interest? Simply, interests are activities which one likes to engage in. For example, one may be interested in scientific activities such as fixing radios, studying plants and animals. At the same time they may not particularly like working with people, as in car sales. It is important to note that success in an area is not the result of interest alone. For example, a person may be interested in being a jet pilot but not have the ability to complete the training.

## How to Understand the Score Levels

It is important that you pay close attention to not only high scores of 10 and above, but also to low scores of 4 and below. High scores indicate occupational interest areas which you should investigate rather carefully. By contrast, low scores indicate occupational interest areas about which you should be somewhat cautious.

[illegible]



- 2 Things. You are more interested in working with things than with people. You like taking a radio apart, cooking, weaving rugs, fixing a car, knitting, working with tools, operating a machine.
- 12 People. You are more interested in working with people than with things. You like teaching and organizing people, writing about people, planning parties.
- 14 Business Contact. You are more interested in meeting people in business than in scientific activities. You are interested in being a sales clerk in a store, selling real estate, being a secretary of a club, interviewing people for a job, acting as a receptionist.
- 0 Scientific. You are more interested in scientific activities than in business contact. You are interested in studying specimens under a microscope, reading science magazines, collecting fossils, building a homemade electric motor, mixing chemicals, analyzing soil conditions.
- 5 Routine. You are more interested in activities which are routine than abstract or creative. You are interested in filing records, having a routine job where you always know what is expected of you, using an adding machine all day, doing the same work until it is finished, typing addresses.
- 9 Abstract-Creative You are more interested in activities which are abstract or allow you to be creative than routine activities. You are interested in painting pictures, designing new gadgets, creating a new hairdo, writing stories, composing music, designing buildings.



14 Social. You are more interested in helping people than engaging in activities alone. You are interested in assisting people who maybe in trouble, caring for sick animals, belonging to a club, doing volunteer work.

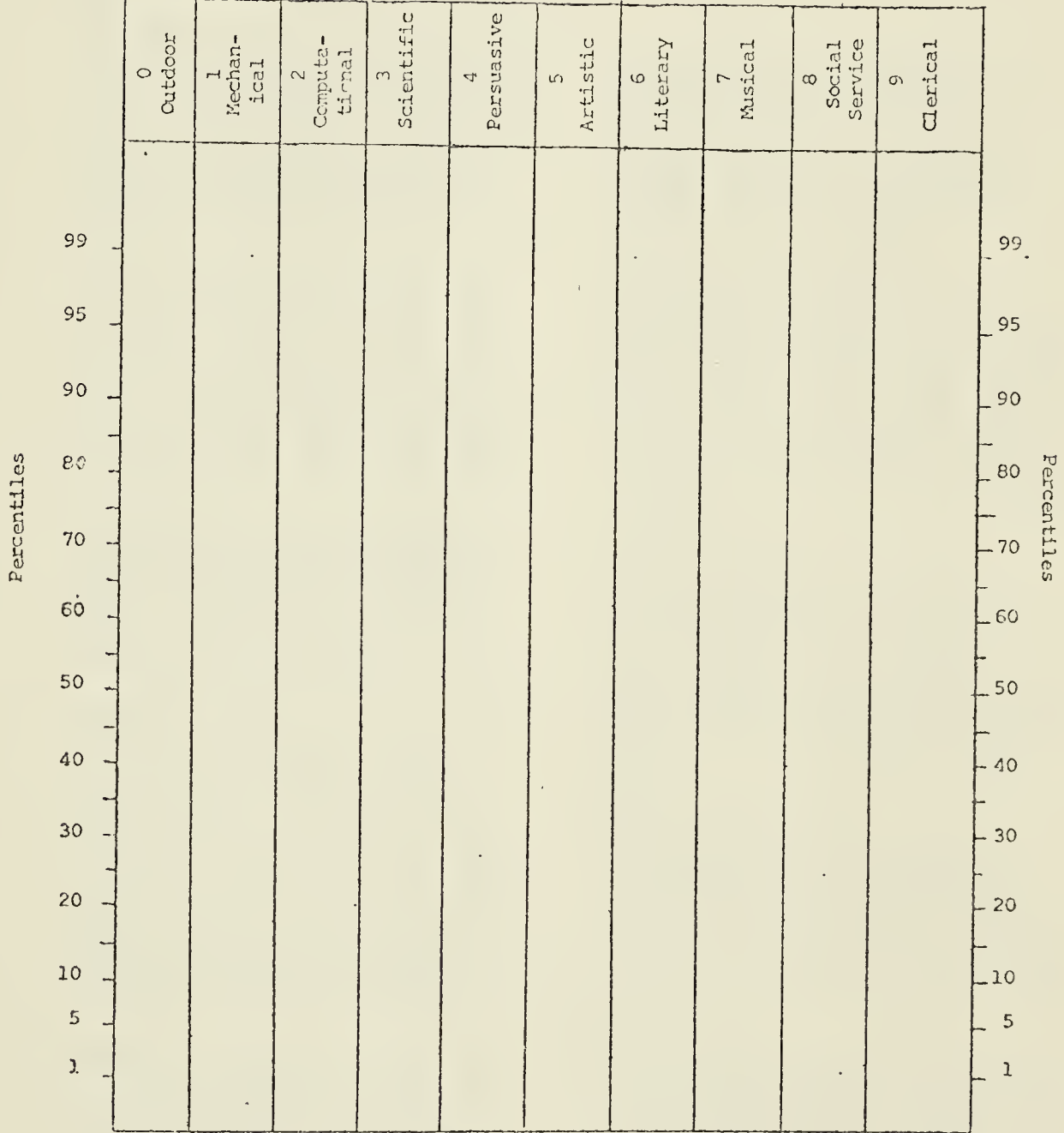
0 Solitary. You are more interested in being alone than engaging in activities with others. You are interested in working with machines, tinkering with cars, developing pictures in a darkroom, being a ham operator, laboratory technician, cooking.

7 Prestige. You are more interested in being considered important by other people than making something that is pleasing to yourself. You are interested in coaching a team, being the leader of a group, being a referee, directing a play, heading a Red Cross drive, being a business manager.

7 Production. You are more interested in making things than being a leader of other people. You are interested in making shell jewelry, remodelling cars, baking a cake, making furniture, gardening, developing pictures



INTEREST PROFILE







- 6 -

# INTERPRETING YOUR INTEREST PROFILE

**OUTDOOR** interest means preference for work or activity that keeps you outside most of the time--usually work dealing with plants and other growing things, animals, fish, and birds. Foresters, naturalists, fishermen, telephone linemen, and farmers are among those high in outdoor interest.

**MECHANICAL** interest means preference for working with machines and tools. If you like to tinker with old clocks, repair broken objects, or watch a garage mechanic at work, you might enjoy shop courses in school. Aviator, toolmaker, machinist, plumber, automobile repairman, and engineer are among the many jobs involving high mechanical interest.

**COMPUTATIONAL** interest indicates a preference for working with numbers and an interest in math courses in school. Bookkeepers, accountants, bank tellers, engineers, and many kinds of scientists are usually high in computational interest.

**SCIENTIFIC** interest is an interest in the discovery or understanding of nature and the solution of problems; particularly with regard to the physical world. If you have a high score in this area, you probably enjoy working in the science lab, reading science articles, or doing science experiments as a hobby. Physician, chemist, engineer, laboratory technician, meteorologist, dietitian, and aviator are among the occupations involving high scientific interest.

**PERSUASIVE** interest is an interest in meeting and dealing with people, in convincing others of the justice of a cause or a point of view, or in promoting projects or things to

sell. Most salesmen, personnel managers, and buyers have high persuasive interest. If you have a high score in this area, you may enjoy such activities as debating, selling tickets for a school play or dance, or selling advertising space for the school paper.

**ARTISTIC** interest indicates a preference for doing creative work with the hands--usually work involving design, color, and materials. If you like to paint, draw, sculpture, decorate a room, design clothes, or work on sets for school plays, you are probably high in this interest. So are artists, sculptors, dress designers, architects, hairdressers, and interior decorators.

**LITERARY** interest is an interest in reading and writing. Persons with literary interest include novelists, English teachers, poets, editors, news reporters, and librarians. If you have a high score on the literary scale, English is probably one of your favorite subjects, and you may enjoy writing for the school paper or magazine.

**MUSICAL** interest usually is demonstrated by persons who enjoy going to concerts, playing an instrument, singing, or reading about music and musicians. Musicians, music teachers, and music critics are among those who have directed high musical interest into a vocation.

**SOCIAL SERVICE** interest indicates a preference for activities that involve helping people. Nurses, Boy Scout or Girl Scout leaders, vocational counsellors, tutors, personnel workers, social worker hospital attendants, and ministers, rabbis, and others in religious service are



- 7 -

among those high in this interest area.

CLERICAL interest means a preference for work that is clearly defined for you-- work that involves specific tasks requiring precision and accuracy. If you have high clerical interest, you probably enjoy school subjects and activities that require attention to detail. Jobs such as bookkeeper, accountant, file clerk, salesclerk, statistician, teach of commercial subjects, and traffic manager fall in this area.



## WORK VALUES INVENTORY

Name Student X Number XXXX Level 10

The statements below represent values which people consider important in their work. Values are satisfactions which people often seek in their jobs or as a result of their jobs. They are not considered equally important by all people. For example, one person may value security and economic return as being very important. Such an individual probably would be advised to select occupations which would insure job security and high rates of pay. On the other hand, another individual probably would be most happy in an occupation in which there was considerable variety and independence.

Attention should be focused on low scores as well as high scores. For example, an individual having a high score on security and a low one on variety might very well consider becoming a civil servant rather than a traveling salesman.

## How to understand Percentile Scores:

For example, if you had a score of 10 on variety, then out of 100 people like you:

- 1) only 10 people would have variety scores which were lower than yours,
- 2) and 90 people would have variety scores which were higher than yours.

Note: Everyone has different work values, there are no good or bad scores.

**85** Altruism: This work value, or goal, is present in work which enables one to help others, to be concerned about the well being of others, particularly the underprivileged or those who may be in difficulty. School counsellors, teachers, social workers, clergymen would tend to make high scores on this scale.

**49** Esthetic: This work value, or goal, is inherent in work which enables one to make beautiful things and to contribute beauty to the world. Artists, auto body workers, interior decorators, architects, beauticians, would probably tend to make higher scores on this scale.

**78** Creativity: This work value, or goal, is present in work which enables one to invent new things, design new projects, or develop new ideas. Engineers, architects, interior decorators, systems analysts, would probably score high in this area.

**6** Intellectual Stimulation: This work value, or goal, is associated with work which provides opportunity for independent thinking and for learning how and why things work, and permits one to make his own judgments. Psychiatrists, lawyers, engineers, philosophers, would probably score high in this area.

**4** Achievement: This work value, or goal, is associated with work which gives one a feeling of accomplishment in doing a job well, to see the results of one's work. Professional men, clerical workers, technical workers, tend to place high emphasis on this value.

**18** Independence: This is associated with work which permits one to work in his own way, as fast or as slow as he wishes. Farmers, self-employed businessmen, research scientists, would probably make high scores on this value.



2 Prestige: associated with work in which one is looked up to as an important person, gives one status and respect in the community. Politicians, physicians, lawyers, judges and related professions, would probably make high scores on this value.

32 Management: associated with work that enables one to plan and lay out the work for others to do. Managers and administrators would probably make high scores on this value.

9 Economic Returns: This value, or goal, is associated with work which pays well and enables one to have the things he wants.

48 Security: associated with work which provides one with the certainty of having a job even in "hard times". Civil servants, teachers, fireman and many others would probably stress this value.

10 Surroundings: This value is associated with work which is carried out under pleasant conditions -- not too hot or too cold, noisy, dirty, good lighting, attractive surroundings, etc. Secretaries tend to attach more importance to these values than do most occupational groups.

90 Supervisory Relations: This value is associated with work carried out under a supervisor who is fair and with whom one can get along.

6 Associates: This value is characterized by work which brings one into contact with fellow workers whom he likes. Associates, the people with whom one works, are considered important.

21 Way of Life: associated with the kind of work that permits "one to live the kind of life he chooses and to be the type of person he wishes to be". For example, a person of high religious values might have difficulty in becoming a bartender.

3 Variety: associated with work that provides an opportunity to do different types of jobs, to travel, to meet new people, experience novelty and change in daily routine, to try new and different jobs, to move about the country.





APTITUDES - General Aptitude Test Battery

Name Student X Number XXXX Level 10

What is an aptitude? Simply, an aptitude is the ability to learn in a certain area. For example, a high score in spatial relations would indicate that a student has a capacity to learn ideas which involve spatial relations (drafting, art, ...). However, such a score does not imply that this student will be successful in drafting or art. Success in these areas would also depend on taking training in these areas along with other factors (interest, drive, work values, availability of training, ...).

In looking over the scores listed below it is important to note that:

1) the scores for every student will be different. Some students will have high scores in some areas and low scores in others. No pattern of scores is necessarily better than another.

2) the student should consider not only high scores (level 1 or 2) but also low scores (level 4 and 5).

3) indeed, in occupational choice a student will probably want to select those which are consistent with his high scores. He may also be advised to think a second time about selecting an occupation requiring aptitudes in which he has below average scores.

How to understand Level Scores:

- Level 1 - Top 10%
- Level 2 - Top 1/3 but excluding top 10%
- Level 3 - Middle 1/3 (average)
- Level 4 - Bottom 1/3 but excluding bottom 10%
- Level 5 - Bottom 10%

Level

2 (G) General Learning Ability - The ability to "catch on" or understand instructions, the ability to reason and make judgments. Closely related to doing well in high school, school of technology and university.

2 (V) Verbal Learning Ability - The ability to understand meaning of words and use them effectively. The ability to read and comprehend. Rather important to a student who wants to continue his education at a school of technology or university.

2 (N) Numerical Ability - Ability to perform arithmetic operations quickly and accurately, e.g. an accountant, bookkeeper, bank teller.

3 (S) Spatial Relations - Ability to think visually in three dimensions. This ability is used in blueprint reading and solving geometric problems as in drafting. Draftsmen, engineers, architects, artists usually make above average scores in this area.



☐ 2 (P) Form Perception - Ability to detect important details in objects and diagrams, to make comparison visually and to see slight differences in shapes of figures and width and lengths of lines. Important in activities as inspecting surfaces for consistency in color, scratches, flaws, grain, texture and the like, determining if patterns match or are correct. Machinists, pattern inspectors, artists tend to make above average scores in this area.

☐ 2 (Q) Clerical Perception - Ability to perceive details in written or tabular form. To observe differences in reports, to proofread words and numbers; and to spot errors in arithmetic and computations. Secretaries and bank tellers would probably make above average scores in this area.

☐ 2 (K) Motor Coordination - Ability to coordinate eyes and hands or fingers rapidly and accurately in making precise movements with speed. Typist, pianist, airline pilot, surgeon, ... would probably make above average scores in this area.

☐ 1 (F) Finger Dexterity - Ability to move fingers and manipulate small objects rapidly and accurately. Typist, pianist, jeweler, surgeon, ... would tend to make above average scores in this ability.

☐ 3 (M) Manual Dexterity - Ability to move hands easily and skillfully. To work with hands in placing and turning operations. Mechanic, sign painter, carpenter, ... would probably make above average scores in this area.

☒ (C) Color Discrimination - Ability to perceive or recognize similarities or differences in colors. Pilots, artists, electronic technicians (color coded wires), interior decorators, auto body repairmen, housepainters would probably not experience much difficulty in distinguishing colors.

Note, a ☒ indicates that no difficulty was detected in this area.

A ☐ indicates that the student may have some difficulty in this area.



SURVEY OF STUDY HABITS

Name Student X Number XXXX Level 10

As you probably know, students with high general learning ability tend to do relatively well in school. However, it is common knowledge that students who score lower in this ability have been successful in high school and further education. These latter students, though fewer in number, usually have the benefit of strong motivation, good work habits and a positive attitude towards teachers and education in general. By contrast, many highly talented students have failed because of poor work habits and negative attitudes.

The results of this survey will help you:

- 1) become aware of how you compare with others with respect to your study habits and attitudes,
- 2) discover which study habits and attitudes may need improvement,
- 3) become aware of whether your attitude toward school and teachers may be effecting your school achievement.

How to understand Percentile Scores:

For example, if you had a score of 80 on work methods, then out of 100 people like you:

- 1) 80 people would have work methods scores which were lower than yours,
- 2) 20 people would have work methods scores which were higher than yours.

Note: The above scores indicate how you feel about certain matters, not what your teachers or others think you should.

5

Delay Avoidance: Getting your assignments and work done on time, not putting things off, and freedom from wasteful delay and distraction.

55

Work Methods: Your use of effective study procedures, efficiency in doing academic assignments, and how-to-study skills.

70

Attitude Toward Teachers: Your opinions of teachers and their classroom behavior and methods.

45

Attitude Toward Education: An indication of how important education is to you.





## OCCUPATIONAL EXPLORATION COMPUTER PRINTOUT

In order to make the computer printout more meaningful, the following information is provided:

Printout 'A' - lists those occupations which appear appropriate to your measured abilities, stated interests, the amount of high school and other training you have indicated you are willing to take and other preferences.

You are encouraged to:

- 1) Read through the list of occupations suggested and discover which ones are new and novel to you. A short description of these can be obtained by consulting the Canadian Classification and Dictionary of Occupations, Volumes I and II. See your counsellor or school librarian concerning these publications.
- 2) 'Check' the occupations which appear interesting to you.
- 3) Draw a line through those which do not interest you.
- 4) Ask your counsellor, librarian or principal whether he has any further information on the occupations listed in Step 2.

Printout 'B' - lists those occupations which appear to be consistent with your self concept, the way you see yourself. How we see ourselves will, to a large degree, determine the occupations we will eventually enter. If we are confident in ourselves, we will tend to select occupations which are appropriate to our abilities. On the other hand, if we have a rather poor self image of ourselves we may very well select those which will not utilize our abilities. For example, a person with the abilities and interests to become a medical doctor and a poor self image may possibly choose to do manual work.

If the occupations listed in 'B' and 'C' are quite similar to those listed in 'A', then it would appear that your 'self image' is very similar to your actual abilities and interests. This is how it should be. On the other hand, if printouts 'A' and 'B' are not very similar then you may be underestimating or overestimating your abilities. This situation is usually indicated by having very few occupations listed in 'C' in comparison to 'A' and 'B'. In this case it might very well be a good idea to consult your counsellor.

Printout 'D' - lists those occupations which you personally felt you had the ability and would be interested in engaging in for a fair portion of your working life. The occupations which were 'starred' appear to be consistent with your measured abilities, stated interests, amount of high school and other training you are willing to take and other preferences. If one or more of your personal choices were not 'starred', this does not mean that you should not consider them, but rather you should examine these more closely. For example, you may wonder why your choice of 'lawyer' was not 'starred'. On consulting with your counsellor, it may become clear that you did not indicate an interest in working with people. Also you may not be aware that five or more years of university training is required whereas you only indicated a desire to only spend four years.





## FUTURE PLANS

\*\*\*\*\*

(Grade 10 Student Occupational Plans)

Considering my interests, abilities, work values, study habits, school marks, and the way I see myself, it would seem that the following occupations appear, at the present time, to be the most suitable for me. I also realize that these selections may change in the future when I leave high school.

## OCCUPATIONAL PLANS

	Occupational Choices	Source of Training
E.G.	Automotive Mechanic Medical Doctor Plumber	KIAS - Saskatoon University of Sask. - Saskatoon Apprentice on the job
First Choice	P. E. Teacher	SUI, SU2, AUI, MUI
Second Choice	Speech Therapist	Mt. Royal, CALGARY - 2 Yr Dipl U. of A., CALGARY - 2 Yr Dipl, 4 Yr DEG
Third Choice	Recreational Tech	KELSEY, STON - 2 Yr Dipl Mt. Royal, CALGARY - 2 Yr Dipl
Fourth Choice	Physiotherapist	U. of S., STON - 3 Yr Dipl, 4 Yr DEG U. of M., WIN'G - 3 Yr Dipl, " BPT
Fifth Choice	Welfare Worker - Social Worker	KELSEY, STON - 1 " " VAN. CITY - 1 Yr Dipl U. of R., REGINA - 4 Yr Dipl BSW U. of M., WIN'G - 3 Yr " "

## REQUIRED HIGH SCHOOL COURSES

In order to qualify for the occupations chosen above, I plan to take the following subjects in Grade 11 and Grade 12.

Grade 11 Subjects	Grade 12 Subjects
English 20 (A & B)	En. 30
Social Studies 20	
Algebra 20	Alg. 30
Chemistry 20	Chem. 30
Biology 20	Biol. 30
French 20	Fr. 30
Typewriting	



## APPENDIX C

### COMPUTER PRINT OUTS

- I. Occupational selections based on data supplied by client and tests. In this instance the student allowed only 1--2 years beyond high school.
- II. Occupational selections based on same data as in Print Out I, except training has been stepped up to 2--4 years.
- III. Occupational selections based on same data as in Print Out I, except training has been stepped up to 4--10 years.



STUDENT REGISTRATION NO. XXXX

MAY 1976

COMPUTER-TESTED CAREER EXPLORATION

THE DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

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STUDENT A

WITH YOUR INTERESTS, ABILITIES, AND WORK HABITS, ETC., WHAT OCCUPATIONS MIGHT YOU CONSIDER? THE FOLLOWING COMPUTER PRINTOUT IS DESIGNED TO HELP YOU ANSWER THIS QUESTION.

A. RECENTLY YOU COMPLETED A QUESTIONNAIRE (CEQ) WITH RECORDED INFORMATION ABOUT YOUR INTERESTS, ABILITIES, WORK PREFERENCES, AND SO FORTH. THE LISTING BELOW IS A SUMMARY OF YOUR RESPONSES TO THIS QUESTIONNAIRE. AS A FIRST STEP YOU MIGHT FIND IT INTERESTING TO REVIEW THESE RESPONSES.

QUESTION FROM CEQ:	1. GED	2. SV	3. APTITUDES	4. GVS	5. COLOR	6. ST	7. PHYSICAL	8. ENVIR.	9. COND'S	10. INTEREST	11. TEMP	12. 13. SEA	14. 15. ART
YOUR RESPONSES:	CR12	1-2	YPS	TEST222322213	CO	L	2	B	24685	5K1978	F	Y	N
				SELF332423244									

B. WITHOUT ANY KNOWLEDGE OF TEST RESULTS YOU WERE REQUESTED, IN THE CEQ, TO SELECT 10 OCCUPATIONS YOU CHOSE THESE AS THE OCCUPATIONS YOU FELT CAPABLE OF TRAINING FOR AND WOULD LIKE TO ENGAGE IN FOR A GOOD PORTION OF YOUR LIFE. YOU LISTED THEM IN THE FOLLOWING ORDER ON YOUR CEQ.

2331-00002	1	SOCIAL WORKER	3313-115125, 13	INTERIOR DESIGN TECH
3137-11442	2	SPEECH THERAPIST	3313-13412, 35, 13	CLOTHES DESIGNER PRO
3133-1311*	3	NURSE GEN DUTY DIPLOM	2704-00002	TEACHER, SPECIAL EDUC
1119-1661*	4	WELFARE WORKER	2121-1301*	PSYCHIATRIC NURSE
2391-11442	5	COUNSELLOR GEN.	4111-1101*	SECRETARY

NOTE:

1. OCCUPATIONS DENOTED BY A STAR (\*) APPEAR TO MATCH WITH YOUR MEASURED ABILITIES AND YOUR RESPONSES TO THE CEQ AND SHOULD BE INVESTIGATED FURTHER. IF AN OCCUPATION IS NOT STARRED, THERE ARE QUESTIONS WHICH NEED TO BE ANSWERED BEFORE CONSIDERING IT SERIOUSLY. THE NUMBER(S) IN BRACKETS IS THE AREA OF THE CEQ THAT CONFLICTS WITH THE OCCUPATION. CONSULT YOUR GUIDANCE COUNSELLOR ABOUT THESE FINDINGS.

2. YOUR RESPONSES TO THE CAREER EXPLORATION QUESTIONNAIRE (CEQ), AND YOUR MEASURED AND ESTIMATED ABILITIES WERE COMPARED WITH THE REQUIREMENTS OF OCCUPATIONS LISTED IN THE CANADIAN CLASSIFICATION AND DICTIONARY OF OCCUPATIONS (CCDO). AS A RESULT THE FOLLOWING REPRESENTATIVE SAMPLES OF OCCUPATIONS HAVE BEEN SUGGESTED FOR YOUR CONSIDERATION. THE NUMBER BESIDE AN OCCUPATION REFERS TO THE CHAPTER IN THE CCDO, VOL 2 WHERE YOU WILL FIND OTHER OCCUPATIONS RELATED TO EACH OF THESE.

C. THESE OCCUPATIONS APPEAR TO MATCH WITH YOUR MEASURED ABILITIES AND YOUR RESPONSES TO THE CEQ. YOUR MEASURED ABILITIES WERE OBTAINED FROM THE RESULTS OF THE GENERAL ABILITY TEST BATTERY.

1116-126 CUSTOMS INSPECTOR	3131-131 NURSE GEN DUTY DIPLOM	4171-118 RECEPTIONIST	5171-118 SALESMAN, INSURANCE
1119-156 AGRICULTURAL REP	3131-138 PSYCHIATRIC NURSE	4191-000 COLLECTOR	5172-118 SALESMAN, REAL ESTATE
1119-166 WELFARE WORKER	3157-110 DENTAL HYGIENIST	4192-110 CLAIM ADJUSTER	5174-122 SALESMAN, RAD-TV TIME
1171-210 CREDIT OFFICER	3157-114 DENTAL ASSISTANT	4193-122 AVSC CLERK	6115-130 CORRECTIONAL OFFICER
2333-116 SOCIAL SERVICE ASSIST	3337-000 RADIO-TV ANNOUNCER	4194-110 TEL CLERK	6119-110 CONSERVATION OFFICER
2333-122 RECREATIONAL TECHNIC	4111-110 SECRETARY	5133-000 COMMERCIAL TRAVELLER	6143-000 BARBER/HAIKRESSER
2731-110 ELEM SCHOOL TEACHER	4133-110 TELLER	5135-000 SALESMAN RETAIL	
2797-140 DRIVING INSTRUCTOR	4133-116 CASHIER	5135-126 SALESPERSON, PARTS	
2799-122 TEACHER ASSISTANT	4153-118 SHIPPING/RECEIV CLERK	5149-110 AUCTIONEER	

D. THESE OCCUPATIONS APPEAR TO MATCH WITH YOUR SELF-CONCEPT AND WITH YOUR RESPONSES TO THE CEQ. AN INDICATION OF YOUR SELF-CONCEPT WAS ARRIVED AT BY CONSIDERING HOW YOU ESTIMATED YOUR ABILITIES COMPARED TO OTHERS.

1119-166 WELFARE WORKER	4191-000 COLLECTOR	5135-000 SALESMAN RETAIL	6115-130 CORRECTIONAL OFFICER
2333-116 SOCIAL SERVICE ASSIST	4192-110 CLAIM ADJUSTER	5134-126 SALESPERSON, PARTS	6119-110 CONSERVATION OFFICER
2333-122 RECREATIONAL TECHNIC	4193-122 TRAVEL CLERK	5149-110 AUCTIONEER	
2799-122 TEACHER ASSISTANT	4194-110 HOTEL CLERK	5171-118 SALESMAN, INSURANCE	
4153-118 SHIPPING/RECEIV CLERK	5133-000 COMMERCIAL TRAVELLER	5172-118 SALESMAN, REAL ESTATE	

CAUTION: THE OCCUPATIONS LISTED HERE ARE ONLY OFFERED AS SUGGESTIONS AND ARE NOT TO BE CONSIDERED AS FINAL SELECTIONS WITHOUT FIRST CONSIDERING THE OPPORTUNITIES AVAILABLE AND YOUR OWN PERSONAL PREFERENCES.

SUCCESS IN ANY OCCUPATION WILL ALSO BE DEPENDANT UPON YOUR DRIVE, WORK HABITS, AND WORK VALUES.





STUDENT REGISTRATION NO. XXXX

MAY 18 1976

## COMPUTER-ASSISTED CAREER EXPLORATION

THE DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

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NOTE: CHANGES HAVE BEEN MADE TO YOUR RESPONSES TO CEQ QUESTIONS 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100. IN SECTION A, AS A CONSEQUENCE NEW OCCUPATIONS HAVE BEEN ADDED IN SECTIONS C & D. THOSE ARE INDICATED BY THE \* SYMBOL APPEARING BETWEEN ITS CECO NUMBER AND TITLE.

STUDENT X

WITH YOUR INTERESTS, ABILITIES, AND WORK HABITS, ETC., WHAT OCCUPATIONS MIGHT YOU CONSIDER? THE FOLLOWING COMPUTER PRINTOUT IS DESIGNED TO HELP YOU PARTLY ANSWER THIS QUESTION.

A. RECENTLY YOU COMPLETED A QUESTIONNAIRE (CEQ) WHICH RECORDED INFORMATION ABOUT YOUR INTERESTS, ABILITIES, WORK PREFERENCES, AND SO FORTH. THE LISTING BELOW IS A SUMMARY OF YOUR RESPONSES TO THIS QUESTIONNAIRE. AS A FIRST STEP YOU MIGHT FIND IT INTERESTING TO REVIEW THESE RESPONSES.

QUESTION FROM CEQ:	1. GED	2. SVT	3. APTITUDES	4. GWSPOKEM	5. COLOR STR	6. PHYSICAL ACTIVITY 1-10	7. ENVIR.	8. CLOTHES	9. INTEREST	10. TEMPERMENT	11. SEX	12. ART	13.
YOUR RESPONSES:	6412	2-4 YRS	1-5122322213	CD	1	2	B	24685	5X1978	F	Y	N	

B. WITHOUT ANY KNOWLEDGE OF TEST RESULTS YOU WERE REQUESTED, IN THE CEQ, TO SELECT 10 OCCUPATIONS YOU CHOSE THESE AS THE OCCUPATIONS YOU FELT CAPABLE OF TRAINING FOR AND WOULD LIKE TO ENGAGE IN FOR A GOOD PORTION OF YOUR LIFE. YOU LISTED THEM IN THE FOLLOWING ORDER ON YOUR CEQ.

2331-0001*	SOCIAL WORKER	3313-114135, 131	INTERIOR DESIGN TECH
3137-1141*	SPEECH THERAPIST	2313-13412, 35, 131	CLOTHES DESIGNER, PRO
3131-1311*	NURSE GEN DUTY DIPLOM	2795-0001*	TEACHER, SPECIAL EDUC
1115-1661*	WELFARE WORKER	3131-1381*	PSYCHIATRIC NURSE
2391-11412	COUNSELLOR GEN.	4111-1101*	SECRETARY

## NOTE:

- OCCUPATIONS DENOTED BY A STAR (\*) APPEAR TO MATCH WITH YOUR MEASURED ABILITIES AND YOUR RESPONSES TO THE CEQ AND SHOULD BE INVESTIGATED FURTHER. IF AN OCCUPATION IS NOT STARRED, THERE ARE QUESTIONS WHICH NEED TO BE ANSWERED BEFORE CONSIDERING IT SERIOUSLY. THE NUMBER(S) IN BRACKETS IS THE AREA OF THE CEQ THAT CONFLICT(S) WITH THE OCCUPATION. CONSULT YOUR GUIDANCE COUNSELLOR ABOUT THESE FINDINGS.
- YOUR RESPONSES TO THE CAREER EXPLORATION QUESTIONNAIRE (CEQ), AND YOUR MEASURED AND ESTIMATED ABILITIES WERE COMPARED WITH THE REQUIREMENTS OF OCCUPATIONS LISTED IN THE CANADIAN CLASSIFICATION AND DIRECTORY OF OCCUPATIONS (CCDO). AS A RESULT THE FOLLOWING REPRESENTATIVE SAMPLES OF OCCUPATIONS HAVE BEEN SUGGESTED FOR YOUR CONSIDERATION. THE NUMBER BESIDE AN OCCUPATION REFERS TO THE CHAPTER IN THE CCDO, VOL. 2, WHERE YOU WILL FIND OTHER OCCUPATIONS RELATED TO EACH OF THESE.

C. THOSE OCCUPATIONS APPEAR TO MATCH WITH YOUR MEASURED ABILITIES AND YOUR RESPONSES TO THE CEQ. YOUR MEASURED ABILITIES WERE OBTAINED FROM THE RESULTS OF THE GENERAL APTITUDE TEST BATTERY.

1115-1141 POSTMASTER	2333-118 SOCIAL SERVICE ASSIST	3137-114 SPEECH THERAPIST	5131-0004 TECHNICAL SALESMAN
1116-127 CUSTOMS INSPECTOR	2333-122 RECREATIONAL TECHNOL	3137-122 PHYSIOTHERAPIST	5133-000 COMMERCIAL TRAVELLER
1116-110 FOREIGN-SRV OFFICER	2351-11411 PRAPRIAN	3152-122 DIETITIAN	5135-000 SALESMAN RETAIL
1116-157 AGRICULTURAL MGR	2511-1104 MINISTER	3154-110 DISPENSING OPTICIAN	5135-126 SALESPERSON, PARTS
1119-166 WELFARE WORKER	2731-110 ELEM SCHOOL TEACHER	3157-110 DENTAL HYGIENIST	5149-110 AUCTIONEER
1137-1144 MANAGER/ADMINISTRATOR	2733-000 SECONDARY SCH TEACH	3157-114 DENTAL ASSISTANT	5171-118 SALESMAN, INSURANCE
1171-210 CREDIT OFFICER	2791-000 VOCATIONAL SCH TEACH	3335-110 ACTOR (P ACTRESS)	5172-118 SALESMAN, REAL ESTATE
1173-000 ORGAN/METHODS ANALYST	2793-110 PUPPING INSTRUCTOR	3337-000 RADIO-TV ANNOUNCER	5173-110 SECURITIES TRADER
1174-118 PERSONNEL OFFICER	2795-000 TEACHER, SPECIAL EDUC	3351-174 REPRODITER	5174-122 SALESMAN, RAD-IV TIME
1175-110 PURCHASING OFFICER	2797-146 DRIVING INSTRUCTOR	3353-122 SCRIPT WRITER	5191-110 BUYER
1179-144 PUBLIC RELATIONS	2799-122 TEACHER ASSISTANT	3710-1301 INSTRUCTOR, PHYS. TRNG	6112-110 CONSERVATION OFFICER
2319-126 HOME ECONOMIST	3131-130 NURSE GEN. DUTY DEGREE	4111-110 SECRETARY	6143-000 BARBER/HAIRDRESSER
2341-000 SOCIAL WORKER	3131-131 NURSE GEN DUTY DIPLOM	4133-110 TELLER	9159-110 PURSER
2331-118 PAROLE OFFICER	3141-138 PSYCHIATRIC NURSE	4153-110 SHIPPING/RECEIV CLERK	
2333-110 REC. DIRECTOR DEGREE	3137-118 OCCUPATIONAL THERAPY	4192-110 CLAIM ADJUSTER	

D. THESE OCCUPATIONS APPEAR TO MATCH WITH YOUR SELF-CONCEPT AND WITH YOUR RESPONSES TO THE CEQ. AN INDICATION OF YOUR SELF-CONCEPT WAS ARRIVED AT BY CONSIDERING HOW YOU ESTIMATED YOUR ABILITIES COMPARED TO OTHERS.

1119-166 WELFARE WORKER	4153-118 SHIPPING/RECEIV CLERK	5135-126 SALESPERSON, PARTS	6119-110 CONSERVATION OFFICER
2333-118 SOCIAL SERVICE ASSIST	4192-110 CLAIM ADJUSTER	5149-110 AUCTIONEER	
2333-122 RECREATIONAL TECHNOL	5133-000 COMMERCIAL TRAVELLER	5171-118 SALESMAN, INSURANCE	
2795-122 TEACHER ASSISTANT	5135-000 SALESMAN RETAIL	5172-118 SALESMAN, REAL ESTATE	

CAUTION: THE OCCUPATIONS LISTED HERE ARE ONLY OFFERED AS SUGGESTIONS AND ARE NOT TO BE CONSIDERED AS FINAL SELECTIONS WITHOUT FIRST CONSIDERING THE OPPORTUNITIES AVAILABLE AND YOUR OWN PERSONAL PREFERENCES.

SUCCESS IN ANY OCCUPATION WILL ALSO BE DEPENDENT UPON YOUR DRIVE, WORK HABITS, AND WORK VALUES.





STUDENT REGISTRATION NO. -XXXX

MAY 1974

COMPUTER - ASSISTED CAREER EXPLORATION

THE DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

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NOTE: CHANGES HAVE BEEN MADE TO YOUR RESPONSES TO CEO QUESTION(S) 17.

HAVE BEEN ADDED IN SECTIONS C &amp; D, THEY ARE INDICATED BY THE \* SYMBOL APPEARING BETWEEN ITS CCOO NUMBER AND TITLE.

STUDENT X

WITH YOUR INTERESTS, ABILITIES, AND WORK HABITS, ETC., WHAT OCCUPATIONS MIGHT YOU CONSIDER? THE FOLLOWING COMPUTER PRINTOUT IS DESIGNED TO HELP YOU PARTLY ANSWER THIS QUESTION.

A. RECENTLY YOU COMPLETED A QUESTIONNAIRE (CEQ) WHICH RECORDED INFORMATION ABOUT YOUR INTERESTS, ABILITIES, WORK PREFERENCES, AND SO FORTH. THE LISTING BELOW IS A SUMMARY OF YOUR RESPONSES TO THIS QUESTIONNAIRE, AS A FIRST STEP YOU MIGHT FIND IT INTERESTING TO REVIEW THESE RESPONSES.

QUESTION FROM CEC:	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
	GED	SV	GVNSQYFM	COLOR	STR	ACTIVITY	1-0	CONDNS	INTEREST	TEMPERMENT	SEX	MUS	AKT
YOUR RESPONSES:	CR12	4-10	YR	TEST	2232213	CO	L	2	8	24695	SK1973	F	Y N

B. WITHOUT ANY KNOWLEDGE OF TEST RESULTS YOU WERE REQUIRED, IN THE CEC, TO SELECT 10 OCCUPATIONS. YOU CHOSE THESE AS THE OCCUPATIONS YOU FELT CAPABLE OF TRAINING FOR AND WOULD LIKE TO ENGAGE IN FOR A GOOD PORTION OF YOUR LIFE. YOU LISTED THEM IN THE FOLLOWING ORDER IN YOUR CEC.

2331-000(*)	SOCIAL WORKER	3313-115(35,13)	INTERIOR DESIGN TECH
3137-116(*)	SPEECH THERAPIST	2313-134(25,13)	CLOTHES DESIGNER PRO
3131-131(*)	NURSE GEN DUTY DIPLOM	2795-000(*)	TEACHER, SPECIAL EDUC
1119-166(2)	WELFARE WORKER	3131-131(*)	PSYCHIATRIC NURSE
2391-114(*)	COUNSELLOR GEN.	4111-110(*)	SECRETARY

NOTES:

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- THESE OCCUPATIONS APPEAR TO MATCH WITH YOUR MEASURED ABILITIES AND YOUR RESPONSES TO THE CEC. YOUR MEASURED ABILITIES WERE OBTAINED FROM THE RESULTS OF THE GENERAL APTITUDE TEST BATTERY.

1115-114*POSTMASTER	2331-118*ACCLE OFFICER	3137-118*OCCUPATIONAL THERAPY	5131-000*TECHNICAL SALESMAN
1115-126*CUSTOMS INSPECTOR	2333-110*EC. DIRECTOR DEGREE	3137-114*SPEECH THERAPIST	5133-000*COMM. SOCIAL TRAVELLER
1119-110*FOREIGN-SERV OFFICER	2333-110*SOCIAL SERVICE ASSIST	3137-122*PHYSIOTHERAPIST	5135-126*SALESPERSON, PARTS
1119-126*AGRICULTURAL REP	2333-122*RECREATIONAL TECHNOL	3152-122*DIETITIAN	5149-110*AUCTIONEER
1137-114*MANAGER/ADMINISTRATOR	2351-114*TRAPARIAN	3154-110*DISPENSING OPTICIAN	5171-115*SALESMAN, INSURANCE
1133-134*MANAGER/INDEPENDENT, CDS	2391-114*COUNSELLOR GEN.	3157-110*DENTAL HYGIENIST	5172-118*SALESMAN, REAL ESTATE
1133-142*PRINCIPAL	2511-110*MINISTER	3332-134*SINGER CONCERT	5173-110*SECURITIES TRADER
1135-114*BANK MANAGER	2731-110*ELEMENTARY SCHOOL TEACHER	3335-110*ACTOR OR ACTRESS	5174-122*SALESMAN, RADIO-TV TIME
1145-110*CONSTRUCTION CONTRACT	2733-000*SECONDARY SCH TEACH	3337-000*RADIO-TV ANNOUNCER	5191-110*BUYER
1171-210*CREDIT OFFICER	2791-000*VOCATIONAL SCH TEACH	3351-110*CRITIC	6119-110*CONSERVATION OFFICER
1173-000*ORGAN/METHODS ANALYST	2793-110*ADULT INSTRUCTOR	3351-154*LITERARY WRITER	6143-000*MANAGER/ADMINISTRATOR
1174-118*PERSONNEL OFFICER	2795-000*TEACHER, SPECIAL EDUC	3351-174*REPORTER	9159-110*WIKER
1175-114*PURCHASING OFFICER	2797-146*DRIVING INSTRUCTOR	3353-122*SCRIPT WRITER	
1179-146*PUBLIC RELATIONS	3131-130*NURSE GEN. DUTY DEGREE	3710-130*INSTRUCTOR, PHYS. TRNG	
2319-124*HOME ECONOMIST	3131-131*NURSE GEN DUTY DIPLOM	4111-110*SECRETARY	
2331-000*SOCIAL WORKER	3131-138*PSYCHIATRIC NURSE	4192-110*CLAIM ADJUSTER	

D. THESE OCCUPATIONS APPEAR TO MATCH WITH YOUR SELF-CONCEPT AND WITH YOUR RESPONSES TO THE CEC. AN INDICATION OF YOUR SELF-CONCEPT WAS ARRIVED AT BY CONSIDERING HOW YOU ESTIMATED YOUR ABILITIES COMPARED TO OTHERS.

2333-118*SOCIAL SERVICE ASSIST	5133-000*COMMERCIAL TRAVELLER	5171-118*SALESMAN, INSURANCE
2333-122*RECREATIONAL TECHNOL	5135-126*SALESPERSON, PARTS	5172-118*SALESMAN, REAL ESTATE
4192-110*CLAIM ADJUSTER	5149-110*AUCTIONEER	6119-110*CONSERVATION OFFICER

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APPENDIX D

A LETTER TO PARENTS ABOUT  
THE CAREER EXPLORATION PROJECT



March, 1976.

TO:

RE: \_\_\_\_\_

We are pleased to announce that your son/daughter has been chosen for a career exploration project. Students are selected at random for this pilot project in our county.

For the next two months, Mr. Ken McMillan in co-operation with Dr. G. R. Sankey from the University of Saskatchewan (Saskatoon) will be involved in helping your son or daughter in career planning. They will attempt to help answer some rather important questions:

- Should I become a doctor, a lawyer, a teacher, a farmer, a nurse, an occupational therapist . . . ?
- With my interests and abilities what occupations should I consider?
- What high school courses should I take to prepare me to become an engineer, agronomist, physiotherapist, a dentist . . . ?
- Where can I take training in order to become a social worker, computer programmer . . . ?

In order to provide this information your son or daughter will be involved in:

- an extensive testing program in the areas of interests, aptitudes, work values . . .
- discussions concerning:
  - 1) various educational and occupational paths. e.g. apprenticeship, universities, trade school, schools of technology.
  - 2) the need to make educational and occupational plans.
  - 3) changing world of occupations.
- individual interviews with a trained vocational counsellor.

To assist the students in career planning they will be given:

- an individualized computer printout listing the occupations which appear to be in accordance with their interests, aptitudes, . . .

To answer any questions that may arise you will be given an opportunity to meet a guidance counsellor. Please phone the school to arrange an appointment if you would like to meet the counsellor.

Yours truly,

*Ken McMillan*

Ken McMillan,  
Director of Guidance Services,  
County of Red Deer No. 23.

per \_\_\_\_\_, counsellor.



## APPENDIX E

### PRE-QUESTIONNAIRE

Included with this questionnaire is the percentage of responses, pre and post respectively, for the treatment group.





# CAREER EXPLORATION PROJECT

Registration Number \_\_\_\_\_ (To be supplied by counsellor)

Coding

1-4

Card Sequence # 1

5

School

 $\text{NiC}$ 

Name: \_\_\_\_\_

6-30

(Surname)

(Given Names)

Parent's Name

(Surname)

(Given Names)

Address

Sex \_\_\_\_\_ (a) Female

31

(b) Male

Grade \_\_\_\_\_ (a) 9

32

(b) 10

(c) 11

(d) 12

(c) over 12

Age            (a) 14

33

(b) 15

(c) 16

(d) 17

(c) over 17



## A. YOUR EDUCATIONAL PLANS

1. Do you think you will leave school soon, leave later, or stay until finishing? 34
- 18.4 ~~10.3~~ (a) Probably leave soon  
 28.2 ~~25.2~~ (b) Definitely leave soon  
 2.6 ~~2.7~~ (c) Probably leave later but before finishing  
 20.5 ~~17.8~~ (d) Definitely leave later but before finishing  
 15.4 ~~12.7~~ (e) Probably finish high school  
 12.8 ~~9.1~~ (f) Definitely finish high school  
 2.6 ~~2.1~~ (g) Don't know
2. If you are probably or definitely going to leave high school before finishing, indicate the main reason for leaving. 35
- 3.1 ~~5.4~~ (a) To get a job  
 3.4 ~~5.4~~ (b) To make my own living and be independent  
 (c) Poor marks or grades  
 (d) To get married  
 (e) Because of financial problems.  
 2.7 ~~2.7~~ (f) Dislike school work  
 (g) Other  
 2.7 ~~2.7~~ (h) Don't know  
 96.9 ~~83.8~~ (i) I plan to finish high school
3. Do you think you will continue your education after high school on a full-time basis, on a part-time basis, or not at all? 36
- 18.4 ~~10.3~~ (a) Definitely full-time  
 28.2 ~~25.2~~ (b) Probably full-time  
 2.6 ~~2.7~~ (c) Definitely part-time  
 20.5 ~~17.8~~ (d) Probably part-time  
 2.6 ~~2.1~~ (e) Definitely not at all  
 15.4 ~~12.7~~ (f) Probably not at all  
 12.8 ~~9.1~~ (g) Undecided  
 2.6 ~~2.1~~ (h) Have not thought about it yet
4. Have you chosen the particular school you will attend after high school? 37
- 10.3 ~~7.7~~ (a) I have made my choice  
 25.6 ~~22.9~~ (b) I have narrowed it down to two or three  
 15.4 ~~12.7~~ (c) I am considering many schools  
 12.8 ~~9.1~~ (d) I am still confused about this  
 12.8 ~~9.1~~ (e) I have not thought about it yet  
 23.1 ~~15.4~~ (f) I do not intend to continue my education after high school



5. What kind of school do you think you will attend after high school?

38

- 8.9 1.5 (a) Business college  
5.1 1.3 (b) Agricultural college or institute  
2.6 2.0 (c) Teacher's college or normal school  
2.6 2.6 (d) Nursing school  
15.4 2.7 (e) Theological seminary or school  
22.1 1.9 (f) Institute of technology or similar post-secondary school  
2.6 2.6 (g) College or university  
15.4 12.8 (h) Other  
5.1 2.6 (i) Undecided  
20.5 15.4 (j) Never thought about it  
 (k) I do not intend to continue my education after high school

6. Have you chosen your area of specialization in post-secondary school or university?

39

- 17.9 17.9 (a) I have made my choice  
38.5 2.6 (b) I have narrowed it down to two or three  
2.6 15.4 (c) I am considering many areas of specialization  
7.7 2.6 (d) I am still confused about this  
12.8 10.8 (e) I have not thought about it yet  
17.9 15.4 (f) I do not intend to continue my education after high school

7. Who has helped you most so far in your thinking about the kind of school you might attend or your area of specialization after school? (Mark only one space.)

40

- 20.5 15.4 (a) My parents  
7.7 2.6 (b) Other relatives or adults  
 (c) A teacher  
5.1 15.4 (d) A guidance counsellor  
2.6 2.6 (e) The principal or vice-principal  
7.7 2.7 (f) Friends  
5.1 2.6 (g) A friend already in post-secondary school  
2.6 2.6 (h) Other  
25.6 15.9 (i) No one helped me  
7.7 5.1 (j) Never thought about it  
17.9 12.8 (k) I do not intend to continue my education after high school

8. Suppose you continued your education (on the job, technical school, university or business school) after high school. Thinking of your ability, how good do you think your chances would be of being successful in getting a degree or diploma?

41

- 7.7 2.6 (a) Much better than average  
28.2 25.6 (b) Above average  
53.8 1.2 (c) Average  
10.3 2.6 (d) Below average  
 (e) Much worse than average









	Pre:	
15.	Friends in school: <u>21.3</u> (a) Yes <u>12.2</u> (b) No <u>22.5</u> (c) Don't know	48
16.	Friends out of school: <u>27.5</u> (a) Yes <u>2.1</u> (b) No <u>22.4</u> (c) Don't know	49
17.	Among your friends in school, how many are planning to finish high school? <u>16.8</u> (a) All of them <u>22.1</u> (b) Most of them <u>2.2</u> (c) About half of them <u>2.1</u> (d) A few of them <u>—</u> (e) None of them <u>2.6</u> (f) Don't know	50
18.	Have most of your friends left high school before finishing? <u>2.1</u> (a) Yes <u>22.2</u> (b) No	51
19.	Among your friends in school, how many are planning to continue their education full-time or part-time after high school? <u>2.6</u> (a) All of them <u>22.5</u> (b) Most of them <u>2.2</u> (c) About half of them <u>22.6</u> (d) A few of them <u>—</u> (e) None of them <u>43.6</u> (f) Don't know	52

## B. YOUR OCCUPATIONAL PLANS

1.	Do you feel you are well enough informed about the different kinds of jobs you could get to make a good choice about your future career? Pre Post <u>2.7</u> <u>16.2</u> (a) Very well <u>51.3</u> <u>21.9</u> (b) Quite well <u>36.5</u> <u>12.9</u> (c) Not too well <u>2.6</u> <u>—</u> (d) Not well at all	53
2.	Would you say that you are better, as well, or less well informed about the kinds of jobs you could get than you were a year ago? <u>25.6</u> <u>26.2</u> (a) Much better informed <u>42.7</u> <u>46.2</u> (b) Somewhat better informed <u>17.9</u> <u>25.6</u> (c) As well informed <u>—</u> (d) Somewhat less well informed <u>2.6</u> (e) Much less well informed <u>5.1</u> (f) Don't know	54



3. Do you feel you know your own interests and abilities well enough to decide about your future career? 55
- 80.2 ~~78.5~~  
 17.9 ~~17.9~~ (a) Very well  
 29.7 ~~29.7~~ (b) Quite well  
 10.3 ~~10.3~~ (c) Not too well  
 2.6 ~~2.6~~ (d) Not well at all
4. Would you say that you know your interests and abilities in this respect better, as well, or less well than you did a year ago? 56
- 20.5 ~~20.5~~ (a) Much better  
 46.7 ~~46.7~~ (b) Somewhat better  
 17.9 ~~17.9~~ (c) As well  
 2.6 ~~2.6~~ (d) Somewhat less well  
 0 ~~0~~ (e) Much less well  
 0 ~~0~~ (f) Don't know
5. When you finish your education, considering your interests, abilities and what you want from a job and how much further you plan to go in school, what type of work or occupation will you be most qualified to go into? Write what is on your mind, on the line below, even if you are not definite about it 57
- \_\_\_\_\_
6. If your dreams could come true, what type of work or occupation would you like to have most as a career? Write the type of work or occupation in the space provided below. 58
- \_\_\_\_\_
7. Now, considering the opportunities for jobs today, what work or occupation do you think you probably will be doing in the future? Write what is on your mind in the space provided even if you are not definite about it. 59
- \_\_\_\_\_



8.	Who has helped you most so far in planning your occupational career?	60
Per	Test	
30.8	22.2 (a) My parents	
10.3	----- (b) Other relatives or adults	
	----- (c) A teacher	
	2.6 (d) The principal or vice-principal	
5.1	2.6 (e) A guidance counsellor in this school	
	----- (f) Another guidance counsellor from the university	
10.3	----- (g) Friends	
2.6	----- (h) Other	
30.8	25.7 (i) No one helped me	
5.1	2.6 (j) I have not yet thought about my occupational career	
9.	How sure are you about what you will do as a career?	61
12.8	15.3 (a) Very sure	
46.7	2.6 (b) Fairly sure	
25.6	24.2 (c) Not too sure	
2.7	2.6 (d) Not sure at all	
5.1	0 (e) I have not thought much about my career yet	
10.	(Girls only - Boys: Mark space (e) on answer sheet) Do you plan to work full-time after you finish your schooling?	62
	----- (a) Not at all	
20.5	12.2 (b) Only before I am married	
25.0	22.2 (c) Both before and after I am married	
15.4	12.2 (d) Have not thought about it yet	
35.9	35.9 (e)	

THE FOLLOWING IS A LIST OF WORRIES THAT MANY PEOPLE HAVE WHEN THEY TRY TO FIND A JOB. INDICATE HOW WORRIED YOU ARE ABOUT EACH OF THEM.

(Questions 11 - 21)

11.	The possibility of being turned down?	63
17.9	10.3 (a) Quite worried	
59.0	20.4 (b) A little worried	
23.1	15.4 (c) Not at all worried	
12.	Not having enough education.	64
15.4	5.1 (a) Quite worried	
56.4	15.7 (b) A little bit worried	
28.2	22.2 (c) Not at all worried	



13. My personality or appearance.	65
<u>1.5</u> <u>1.5</u> (a) Quite worried	
<u>42.6</u> <u>42.6</u> (b) A little bit worried	
<u>46.2</u> <u>46.2</u> (c) Not at all worried	
14. Getting good references	66
<u>0</u> <u>2.2</u> (a) Quite worried	
<u>44.5</u> <u>44.5</u> (b) A little bit worried	
<u>28.3</u> <u>28.3</u> (c) Not at all worried	
15. The number of other people trying for the job.	67
<u>20.5</u> <u>20.5</u> (a) Quite worried	
<u>46.7</u> <u>46.7</u> (b) A little bit worried	
<u>12.8</u> <u>12.8</u> (c) Not at all worried	
16. My lack of experience.	68
<u>28.2</u> <u>28.2</u> (a) Quite worried	
<u>64.1</u> <u>64.1</u> (b) A little bit worried	
<u>7.7</u> <u>7.7</u> (c) Not at all worried	
17. Being alone without my parents	69
<u>2.6</u> <u>2.6</u> (a) Quite worried	
<u>35.9</u> <u>35.9</u> (b) A little bit worried	
<u>61.5</u> <u>61.5</u> (c) Not at all worried	
18. Getting a job I like	70
<u>30.9</u> <u>30.9</u> (a) Quite worried	
<u>48.7</u> <u>48.7</u> (b) A little bit worried	
<u>20.5</u> <u>20.5</u> (c) Not at all worried	
19. Having the right connections.	71
<u>5.1</u> <u>5.1</u> (a) Quite worried	
<u>76.9</u> <u>76.9</u> (b) A little bit worried	
<u>17.9</u> <u>17.9</u> (c) Not at all worried	
20. Knowing where to look and what to do to find a job.	72
<u>12.0</u> <u>12.0</u> (a) Quite worried	
<u>69.2</u> <u>69.2</u> (b) A little bit worried	
<u>17.9</u> <u>17.9</u> (c) Not at all worried	
21. Getting a job for which I have been trained.	73
<u>17.9</u> <u>17.9</u> (a) Quite worried	
<u>61.5</u> <u>61.5</u> (b) A little bit worried	
<u>17.9</u> <u>17.9</u> (c) Not at all worried	
22. Where do you think you stand in your chance of getting a good job compared with the other students in your class?	74
<u>2.6</u> <u>2.6</u> (a) Much better than average	
<u>32.2</u> <u>32.2</u> (b) Better than average	
<u>44.5</u> <u>44.5</u> (c) About average	
<u>2.6</u> <u>2.6</u> (d) Below average	
<u>0</u> <u>0</u> (e) Much below average	





Registration Number _____ (To be supplied by counsellor)	1-4
Card Sequence # 2	5
<p>23. Do you think that a student who graduates from this school has a better, equal, or worse chance for a good job as students graduating from other high schools you have heard about in this province?</p> <p>2.0 <u>Bar</u>  7.7 <u>2.1</u> (a) Much better  7.7 <u>6.1</u> (b) A little better  66.7 <u>1.1</u> (c) Equal  17.9 <u>2.1</u> (d) A little worse  0 <u>   </u> (e) Much worse</p>	6
<p>24. What do you think the chances are that the things you are learning now will be useful in one way or another in your future career?</p> <p>7.7 <u>5.1</u> (a) Very good  64.1 <u>6.1</u> (b) Fairly good  17.9 <u>2.1</u> (c) Not too good  7.7 <u>10.2</u> (d) Not good at all  2.6 <u>0</u> (e) Don't know</p>	7
<p>25. How important do you think your grades or marks will be in getting the kind of job you want?</p> <p>28.2 <u>1.1</u> (a) Very important  32.5 <u>2.1</u> (b) Quite important  25.6 <u>2.1</u> (c) Not very important  2.6 <u>2.1</u> (d) Not important at all  5.1 <u>0</u> (e) Don't know</p>	8
<p>26. Suppose you were offered the sort of job you had always wanted. Then you found out that your friends did not think you were suited for it. Do you think you would:</p> <p>46.2 <u>4.1</u> (a) definitely take the job anyway.  45.7 <u>4.1</u> (b) probably take the job anyway  5.1 <u>2.1</u> (c) probably not take the job  <u>   </u> (d) definitely not take the job</p>	9
<p>27. Now, let's suppose your friends thought you should take this job, but your parents felt you were not suited for it. Do you think you would:</p> <p>15.4 <u>2.1</u> (a) definitely take the job anyway.  61.5 <u>2.1</u> (b) probably take the job anyway  26.5 <u>2.1</u> (c) probably not take the job  2.6 <u>   </u> (d) definitely not take the job</p>	10
<p>28. Then let's suppose your parents thought you should take this job, but either your guidance counsellor, teacher or principal felt you were not suited for it. Do you think you would:</p> <p>25.6 <u>2.1</u> (a) definitely take the job anyway  57.0 <u>4.1</u> (b) probably take the job anyway  12.8 <u>2.1</u> (c) probably not take the job  <u>   </u> (d) definitely not take the job</p>	11



## C. YOUR IDEAS ABOUT WORK AND THE FUTURE

There are a number of statements about career choice in this booklet. Career choice means the kind of job or work which you think you will probably be doing when you have finished all of your schooling.

If you agree or mostly agree with the statement, mark TRUE.  
If you disagree or mostly disagree with the statement, mark FALSE.

- |   |    |
|---|----|
| 1. Once you choose a job, you can't choose another one.                                 | 12 |
| ___ (a) True  |    |
| ___ (b) False   |    |
| 2. In order to choose a job, you need to know what kind of person you are.              | 13 |
| ___ (a) True  |    |
| ___ (b) False   |    |
| 3. I plan to follow the line of work my parents suggest.                                | 14 |
| ___ (a) True  |    |
| ___ (b) False   |    |
| 4. I guess everybody has to go to work sooner or later, but I don't look forward to it. | 15 |
| ___ (a) True  |    |
| ___ (b) False   |    |
| 5. A person can do any kind of work he wants as long as he tries hard.                  | 16 |
| ___ (a) True  |    |
| ___ (b) False   |    |
| 6. I'm not going to worry about choosing an occupation until I'm out of school.         | 17 |
| ___ (a) True  |    |
| ___ (b) False   |    |
| 7. Your job is important because it determines how much you can earn.                   | 18 |
| ___ (a) True  |    |
| ___ (b) False   |    |
| 8. Work is worthwhile mainly because it lets you buy the things you want.               | 19 |
| ___ (a) True  |    |
| ___ (b) False   |    |



- |     |   |    |
|-----|---|----|
| 9.  | The greatest appeal of a job to me is the opportunity it provides for getting ahead.                  | 20 |
|     | <input type="checkbox"/> (a) True   |    |
|     | <input type="checkbox"/> (b) False  |    |
| 10. | I often daydream about what I want to be, but I really haven't chosen a line of work yet.             | 21 |
|     | <input type="checkbox"/> (a) True   |    |
|     | <input type="checkbox"/> (b) False  |    |
| 11. | Knowing what you are good at is more important than knowing what you like in choosing an occupation.  | 22 |
|     | <input type="checkbox"/> (a) True   |    |
|     | <input type="checkbox"/> (b) False  |    |
| 12. | Your parents probably know better than anybody else which occupation you should enter.                | 23 |
|     | <input type="checkbox"/> (a) True   |    |
|     | <input type="checkbox"/> (b) False  |    |
| 13. | If I can just help others in my work, I'll be happy.  | 24 |
|     | <input type="checkbox"/> (a) True   |    |
|     | <input type="checkbox"/> (b) False  |    |
| 14. | Work is dull and unpleasant.  | 25 |
|     | <input type="checkbox"/> (a) True   |    |
|     | <input type="checkbox"/> (b) False  |    |
| 15. | Everyone seems to tell me something different; as a result I don't know which kind of work to choose. | 26 |
|     | <input type="checkbox"/> (a) True   |    |
|     | <input type="checkbox"/> (b) False  |    |
| 16. | I don't know how to go about getting into the kind of work I want to do.                              | 27 |
|     | <input type="checkbox"/> (a) True   |    |
|     | <input type="checkbox"/> (b) False  |    |
| 17. | There is no point deciding on a job when the future is so uncertain.                                  | 28 |
|     | <input type="checkbox"/> (a) True   |    |
|     | <input type="checkbox"/> (b) False  |    |
| 18. | I spend a lot of time wishing I could do work I know I can never do.                                  | 29 |
|     | <input type="checkbox"/> (a) True   |    |
|     | <input type="checkbox"/> (b) False  |    |



- |     |   |    |
|-----|---|----|
| 19. | I don't know what courses I should take in school.  | 30 |
|     | ___ (a) True  |    |
|     | ___ (b) False   |    |
| 20. | It's probably just as easy to be successful in one occupation as it is in another.                              | 31 |
|     | ___ (a) True  |    |
|     | ___ (b) False   |    |
| 21. | By the time you are 15, you should have your mind pretty well made up about the occupation you intend to enter. | 32 |
|     | ___ (a) True  |    |
|     | ___ (b) False   |    |
| 22. | There are so many things to consider in choosing an occupation, it is hard to make a decision.                  | 33 |
|     | ___ (a) True  |    |
|     | ___ (b) False   |    |
| 23. | I seldom think about the job I want to enter.   | 34 |
|     | ___ (a) True  |    |
|     | ___ (b) False   |    |
| 24. | It doesn't matter which job you choose as long as it pays well.   | 35 |
|     | ___ (a) True  |    |
|     | ___ (b) False   |    |
| 25. | You can't go very far wrong by following your parents' advice about which job to choose.                        | 36 |
|     | ___ (a) True  |    |
|     | ___ (b) False   |    |
| 26. | Working is much like going to school.   | 37 |
|     | ___ (a) True  |    |
|     | ___ (b) False   |    |
| 27. | I am having difficulty in preparing myself for the work I want to do.   | 38 |
|     | ___ (a) True  |    |
|     | ___ (b) False   |    |
| 28. | I know very little about the requirements of jobs.  | 39 |
|     | ___ (a) True  |    |
|     | ___ (b) False   |    |
| 29. | The job I choose has to give me plenty of freedom to do what I want.  | 40 |
|     | ___ (a) True  |    |
|     | ___ (b) False   |    |





- |     |   |    |
|-----|---|----|
| 30. | The best thing to do is to try out several jobs, and then choose the one you like best.   | 41 |
|     | <input type="checkbox"/> (a) True   |    |
|     | <input type="checkbox"/> (b) False  |    |
| 31. | There is only one occupation for each person.   | 42 |
|     | <input type="checkbox"/> (a) True   |    |
|     | <input type="checkbox"/> (b) False  |    |
| 32. | Whether you are interested in a particular kind of work is not as important as whether you can do it.                                 | 43 |
|     | <input type="checkbox"/> (a) True   |    |
|     | <input type="checkbox"/> (b) False  |    |
| 33. | I can't understand how some people can be so certain about what they want to do.  | 44 |
|     | <input type="checkbox"/> (a) True   |    |
|     | <input type="checkbox"/> (b) False  |    |
| 34. | As long as I can remember, I've known what kind of work I want to do.   | 45 |
|     | <input type="checkbox"/> (a) True   |    |
|     | <input type="checkbox"/> (b) False  |    |
| 35. | I want to really accomplish something in my work - to make a great discovery or earn a lot of money or help a great number of people. | 46 |
|     | <input type="checkbox"/> (a) True   |    |
|     | <input type="checkbox"/> (b) False  |    |
| 36. | You get into an occupation mostly by chance.  | 47 |
|     | <input type="checkbox"/> (a) True   |    |
|     | <input type="checkbox"/> (b) False  |    |
| 37. | It's who you know, not what you know, that's important in a job.  | 48 |
|     | <input type="checkbox"/> (a) True   |    |
|     | <input type="checkbox"/> (b) False  |    |
| 38. | When it comes to choosing a job, I'll make up my own mind.  | 49 |
|     | <input type="checkbox"/> (a) True   |    |
|     | <input type="checkbox"/> (b) False  |    |
| 39. | You should choose an occupation which gives you a chance to help others.  | 50 |
|     | <input type="checkbox"/> (a) True   |    |
|     | <input type="checkbox"/> (b) False  |    |



40.	When I am trying to study, I often find myself daydreaming about what it will be like when I start working.	51
	<input type="checkbox"/> (a) True	
	<input type="checkbox"/> (b) False	
41.	I have little or no idea of what working will be like.	52
	<input type="checkbox"/> (a) True	
	<input type="checkbox"/> (b) False	
42.	You should choose an occupation, then plan how to enter it.	53
	<input type="checkbox"/> (a) True	
	<input type="checkbox"/> (b) False	
43.	I really can't find any work that has much appeal to me.	54
	<input type="checkbox"/> (a) True	
	<input type="checkbox"/> (b) False	
44.	You should choose a job in which you can someday become famous.	55
	<input type="checkbox"/> (a) True	
	<input type="checkbox"/> (b) False	
45.	If you have some doubts about what you want to do, ask your parents or friends for advice and suggestions.	56
	<input type="checkbox"/> (a) True	
	<input type="checkbox"/> (b) False	
46.	You should choose a job which allows you to do what you believe in.	57
	<input type="checkbox"/> (a) True	
	<input type="checkbox"/> (b) False	
47.	The most important part of work is the pleasure which comes from doing it.	58
	<input type="checkbox"/> (a) True	
	<input type="checkbox"/> (b) False	
48.	I keep changing my occupational choice.	59
	<input type="checkbox"/> (a) True	
	<input type="checkbox"/> (b) False	
49.	As far as choosing an occupation is concerned, something will come along sooner or later.	60
	<input type="checkbox"/> (a) True	
	<input type="checkbox"/> (b) False	
50.	I am not going to worry about choosing a job since you don't have anything to say about it anyway.	61
	<input type="checkbox"/> (a) True	
	<input type="checkbox"/> (b) False	
V. M. R. S.	(To be supplied by counsellor) _____	62-63
V. M. P. S.	(To be supplied by counsellor) _____	64-65



Registration Number \_\_\_\_\_ (To be supplied by counsellor)

1-4

Card Sequence # 3

5

#### D. YOUR ACTIVITIES IN SCHOOL

1. If you had worked harder last year, do you think you could have improved your marks or grades? 6  
22.5 (a) Yes, a great deal  
33.8 (b) Yes, a little bit  
7.7 (c) No, it would not have made any difference  
2.1 (d) Don't know
2. If you could be remembered here at school for one of the four things below, which one would you want it to be? 7  
22.5 (a) Brilliant student  
22.1 (b) Athletic star  
7.7 (c) Leader in school clubs and organizations  
45.2 (d) Popular student
3. Suppose you had an extra hour at school, what would you most like to do with it? 8  
22.1 (a) Take some extra subject of my own choosing  
35.9 (b) Use it for athletics  
15.3 (c) Spend it in a club, organization or other school activity  
30.8 (d) Use it as a study period
4. Where do you think you stand in intelligence in relation to the students in your class? 9  
2.6 (a) Definitely above average  
35.2 (b) Slightly above average  
52.2 (c) Just about average  
2.1 (d) Slightly below average  
2.6 (e) Definitely below average
5. How accurately do your school grades or marks reflect your real intelligence? 10  
12.2 (a) My marks are much lower than my real intelligence  
46.2 (b) My marks are slightly lower  
45.4 (c) My marks accurately reflect my real intelligence  
— (d) My marks are slightly higher  
— (e) My marks are much higher  
20.8 (f) I don't know
6. Even with a good education, a person like me will have a tough time getting the job he wants. 11  
2.6 (a) Strongly agree  
20.5 (b) Agree  
62.7 (c) Disagree  
12.2 (d) Strongly disagree



7. What do you consider to be satisfactory grades for you? 12
- Pass. (a) Any passing grade  
22.9 (b) Average grade is O.K.  
22.4 (c) An above average grade  
56.4 (d) One of the highest grades in the class  
2.7 (e) I really don't care much
8. Do you agree or disagree with this statement: "If I could change, I would be someone different from myself." 13
- 17.7 (a) Agree  
82.3 (b) Disagree

## E. YOU AND YOUR FAMILY

1. What is your father's occupation? (Indicate it as accurately as you can, using two words if possible; for example write "shoe salesman" instead of just salesman"; or write "electrical engineer" instead of just "engineer". If he is retired or deceased, say what his occupation was. Write in the space provided below. 14
- 
2. Does your mother work outside the home? 15
- 48.7 (a) Yes  
51.3 (b) No
3. How far did your father go in school? 16
- (a) None  
70.3 (b) Elementary school  
29.0 (c) Some high school  
70.3 (d) Finished high school  
8.1 (e) College or university  
     (f) Post-secondary technical school, such as institute of technology  
     (g) Teacher's college or normal school  
     (h) Agriculture college or institute  
     (i) Business or commercial college  
     (j) Other  
15.4 (k) Don't know





4. How far did your mother go in school? 17
- 2.1 (a) None  
41.0 (b) Elementary school  
25.9 (c) Some high school  
25.9 (d) Finished high school  
--- (e) College or university  
--- (f) Post-secondary technical school, such as institute of technology  
22.4 (g) Teacher's college or normal school  
2.6 (h) Nursing school  
2.6 (i) Business or commercial college  
--- (j) Other  
15.2 (k) Don't know
5. Which of the following statements describes your family situation? 18
- 87.2 (a) I live with both of my parents.  
2.6 (b) My father is dead and I live with my mother  
5.1 (c) My mother is dead and I live with my father  
--- (d) Both my parents are dead  
--- (e) Both my parents are dead and I live with foster parents  
--- (f) My parents are separated or divorced and I live with my mother  
--- (g) My parents are separated or divorced and I live with my father  
5.1 (h) Other
6. Do you have any older brothers or sisters living at home? 19
- 17.9 (a) Yes, older brothers  
12.9 (b) Yes, older sisters  
12.9 (c) Yes, both older brothers and sisters  
30.8 (d) No  
26.2 (e) I have no older brothers and sisters
7. Do you have any older brothers or sisters going to university or other post-secondary school? 20
- 5.1 (a) Yes, older brothers  
10.2 (b) Yes, older sisters  
5.1 (c) Yes, both older brothers and sisters  
23.0 (d) No  
20.5 (e) I have no older brothers and sisters
8. Do you have any older brothers and sisters who have a regular job? 21
- 23.1 (a) Yes, older brothers  
15.4 (b) Yes, older sisters  
12.8 (c) Yes, both older brothers and sisters  
23.2 (d) No  
20.5 (e) I have no older brothers and sisters



- |   |    |
|---|----|
| <p>9. How much influence would you say you have in family decisions affecting yourself?</p> <p><u>35.5</u> (a) A lot of influence<br/> <u>41.7</u> (b) Some influence<br/> <u>6</u> (c) None at all<br/> <u>5.1</u> (d) Don't know</p>  | 22 |
| <p>10. How much would you say your father knows about your work in school?</p> <p><u>20.5</u> (a) A great deal<br/> <u>21.3</u> (b) A fair amount<br/> <u>25.1</u> (c) Very little</p>  | 23 |
| <p>11. How much would you say your mother knows about your work in school?</p> <p><u>35.9</u> (a) A great deal<br/> <u>51.2</u> (b) A fair amount<br/> <u>12.8</u> (c) Very little</p>  | 24 |
| <p>12. What do your parents consider to be satisfactory grades or marks for you?</p> <p><u>7.7</u> (a) A passing grade or mark<br/> <u>25.4</u> (b) An average grade or mark<br/> <u>47.4</u> (c) An above average grade or mark<br/> <u>15.2</u> (d) One of the highest grades or marks in the class<br/> <u>0</u> (e) They don't really care much</p> | 25 |
| <p>13. Do you have a quiet place in your house where you can study?</p> <p><u>61.5</u> (a) Yes<br/> <u>25.5</u> (b) No</p>  | 26 |
| <p>14. Where was your father born?</p> <p><u>20.5</u> (a) In this town or community<br/> <u>35.9</u> (b) Outside this town or community, but in this province<br/> <u>35.9</u> (c) Outside this province but in Canada<br/> <u>2.6</u> (d) Outside Canada<br/> <u>5.1</u> (e) Don't know</p>  | 27 |
| <p>15. Where was your mother born?</p> <p><u>7.7</u> (a) In this town or community<br/> <u>51.3</u> (b) Outside this town or community, but in this province<br/> <u>25.2</u> (c) Outside this province but in Canada<br/> <u>2.7</u> (d) Outside Canada<br/> <u>2.1</u> (e) Don't know</p>   | 28 |
| <p>16. Have you been in this school every since you entered high school?</p> <p><u>87.7</u> (a) Yes<br/> <u>12.6</u> (b) No</p>   | 29 |



17. How long have you lived in this town, city, or community? 30
- 5.1 (a) Less than 1 year  
 12.9 (b) 1 or 2 years  
 2.6 (c) 3 or 4 years  
 10.2 (d) 5 or 6 years  
 25.6 (e) 7 years or more  
 35.3 (f) Lived all my life here
18. Did you earn any money by working outside the home this past summer? 31
- 35.7 (a) Yes, all or almost all summer  
 5.1 (b) Yes, for about a month  
 25.6 (c) Yes, for 1 or 2 weeks  
 32.3 (d) No
19. As a result of answering this questionnaire, do you think you will be more concerned with planning your career than you were before? 32
- 42.3 (a) Yes, much more than before  
 20.9 (b) Yes, somewhat more  
 22.7 (c) Yes, a little more  
 20.5 (d) No, just the same  
 5.1 (e) Don't know

## F. HELP WANTED CHECK LIST

Directions: The list below covers several things with which students sometimes would like help. If you desire any help with the following please indicate by a tick ☒.

- | <u>Pre</u> | <u>Post</u> |  |                              |    |
|------------|-------------|--|------------------------------|----|
| 42.6       | 61.5        | 1. Improving my study habits.                                  | Yes <input type="checkbox"/> | 33 |
| 46.2       | 25.6        | 2. Choosing courses.   | Yes <input type="checkbox"/> | 34 |
| 7.7        | 12.9        | 3. Discussing personal things that are concerning me.          | Yes <input type="checkbox"/> | 35 |
| 64.1       | 58.2        | 4. Making career plans.  | Yes <input type="checkbox"/> | 36 |
| 23.1       | 28.2        | 5. Obtaining money to continue my education after high school. | Yes <input type="checkbox"/> | 37 |
| 7.7        | 5.5         | 6. Discussing a health problem that is concerning me.          | Yes <input type="checkbox"/> | 38 |



## APPENDIX F

### POST-QUESTIONNAIRE

Included with this questionnaire is the percentage age of responses for questions unique to the post-questionnaire. (See Appendix E for most post-questionnaire responses.)





CAREER EXPLORATION PROJECT  
\*\*\*\*\*

Registration Number \_\_\_\_\_ (To be supplied by counsellor)

Card Sequence # 4

School \_\_\_\_\_

Name \_\_\_\_\_  
(Surname) (Given Names)

Coding

1-4

5

NC

6-30

A few weeks ago you were asked to answer questions about your future career. Your ideas may be the same now as they were at that time, or they may have changed. You may, for example, have made up your mind about something on which you were undecided a few weeks ago, or you may have changed your mind as you did some more thinking, or you may still be undecided. Because of this, we are asking some questions again that we asked you a few weeks ago as your ideas now may have changed from what they were then. So, when you are answering the questions, don't try and remember what you answered previously. Answer what you think and feel now.

A. YOUR EDUCATIONAL PLANS

1. Do you think you will leave school soon, leave later, or stay until finishing?
- \_\_\_ (a) Probably leave soon
  - \_\_\_ (b) Definitely leave soon
  - \_\_\_ (c) Probably leave later but before finishing
  - \_\_\_ (d) Definitely leave later but before finishing
  - \_\_\_ (e) Probably finish high school
  - \_\_\_ (f) Definitely finish high school
  - \_\_\_ (g) Don't know

31



2. If you are probably or definitely going to leave high school before finishing, indicate the main reason for leaving. 32
- ☐ (a) To get a job
  - ☐ (b) To make my own living and be independent
  - ☐ (c) Poor marks or grades
  - ☐ (d) To get married
  - ☐ (e) Because of financial problems
  - ☐ (f) Dislike school work
  - ☐ (g) Other
  - ☐ (h) Don't know
  - ☐ (i) I plan to finish high school
3. Do you think you will continue your education after high school on a full-time basis, on a part-time basis, or not at all? 33
- ☐ (a) Definitely full-time
  - ☐ (b) Probably full-time
  - ☐ (c) Definitely part-time
  - ☐ (d) Probably part-time
  - ☐ (e) Definitely not at all
  - ☐ (f) Probably not at all
  - ☐ (g) Undecided
  - ☐ (h) Have not thought about it yet
4. Have you chosen the particular school you will attend after high school? 34
- ☐ (a) I have made my choice
  - ☐ (b) I have narrowed it down to two or three
  - ☐ (c) I am considering many schools
  - ☐ (d) I am still confused about this
  - ☐ (e) I have not thought about it yet
  - ☐ (f) I do not intend to continue my education after high school
5. What kind of school do you think you will attend after high school? 35
- ☐ (a) Business college
  - ☐ (b) Agricultural college or institute
  - ☐ (c) Teacher's college or normal school
  - ☐ (d) Nursing school
  - ☐ (e) Theological seminary or school
  - ☐ (f) Institute of technology or similar post-secondary school
  - ☐ (g) College or university
  - ☐ (h) Other
  - ☐ (i) Undecided
  - ☐ (j) Never thought about it
  - ☐ (k) I do not intend to continue my education after high school



6. Have you chosen your area of specialization in post-secondary school or university? 36
- ☐ (a) I have made my choice
  - ☐ (b) I have narrowed it down to two or three
  - ☐ (c) I am considering many areas of specialization
  - ☐ (d) I am still confused about this
  - ☐ (e) I have not thought about it yet
  - ☐ (f) I do not intend to continue my education after high school
7. Who has helped you most so far in your thinking about the kind of school you might attend or your area of specialization after school? (Mark only one space.) 37
- ☐ (a) My parents
  - ☐ (b) Other relatives or adults
  - ☐ (c) A teacher
  - ☐ (d) A guidance counsellor
  - ☐ (e) The principal or vice-principal
  - ☐ (f) Friends
  - ☐ (g) A friend already in post-secondary school
  - ☐ (h) Other
  - ☐ (i) No one helped me
  - ☐ (j) Never thought about it
  - ☐ (k) I do not intend to continue my education after high school
8. Suppose you continued your education on the job, in technical school, university, or business college after high school. Thinking of your ability, how good do you think your chances would be of being successful in getting a degree or diploma? 38
- ☐ (a) Much better than average
  - ☐ (b) Above average
  - ☐ (c) Average
  - ☐ (d) Below average
  - ☐ (e) Much worse than average
9. Do you think that a student who graduates from this school has a better, equal, or worse chance of being successful in further education after high school as students graduating from other high schools you have heard about in this province? 39
- ☐ (a) Much better
  - ☐ (b) A little better
  - ☐ (c) Equal
  - ☐ (d) A little worse
  - ☐ (e) Much worse



- |   |    |
|---|----|
| 10. How far do your parents want you to go in high school?  | 40 |
| <input type="checkbox"/> (a) Leave soon<br><input type="checkbox"/> (b) Leave later but before finishing<br><input type="checkbox"/> (c) Stay until finishing<br><input type="checkbox"/> (d) Don't know parent's wishes  |    |
| 11. Do your parents want you to continue your education after high school on a full-time basis, on a part-time basis, or not at all?  | 41 |
| <input type="checkbox"/> (a) On a full-time basis<br><input type="checkbox"/> (b) On a part-time basis<br><input type="checkbox"/> (c) Not at all<br><input type="checkbox"/> (d) Don't know my parents wishes  |    |
| 12. If your parents want you to continue your education after high school, what kind of school do you think they would like to see you attend?  | 42 |
| <input type="checkbox"/> (a) Business college<br><input type="checkbox"/> (b) Agricultural college or institute<br><input type="checkbox"/> (c) Teacher's college or normal school<br><input type="checkbox"/> (d) Nursing school<br><input type="checkbox"/> (e) Theological seminary or school<br><input type="checkbox"/> (f) Institute of technology or similar post-secondary school<br><input type="checkbox"/> (g) College or university<br><input type="checkbox"/> (h) Other<br><input type="checkbox"/> (i) No school in particular<br><input type="checkbox"/> (j) Don't know parent's wishes<br><input type="checkbox"/> (k) My parents do not want me to continue my education after high school |    |

#### B. YOUR OCCUPATIONAL PLANS

- |  |    |
|--|----|
| 1. Do you feel you are well enough informed about the different kinds of jobs you could get to make a good choice about your future career?  | 43 |
| <input type="checkbox"/> (a) Very well<br><input type="checkbox"/> (b) Quite well<br><input type="checkbox"/> (c) Not too well<br><input type="checkbox"/> (d) Not well at all   |    |
| 2. Would you say that you are better, as well, or less well informed about the kinds of jobs you could get than you were one month ago?  | 44 |
| <input type="checkbox"/> (a) Much better informed<br><input type="checkbox"/> (b) Somewhat better informed<br><input type="checkbox"/> (c) As well informed<br><input type="checkbox"/> (d) Somewhat less well informed<br><input type="checkbox"/> (e) Much less well informed<br><input type="checkbox"/> (f) Don't know |    |





3. Would you say that you know your interests and abilities in order to decide about your career better, as well, or less well now than you did one month ago?

45

- ☐ (a) Much better  
☐ (b) Somewhat better  
☐ (c) As well  
☐ (d) Somewhat less well  
☐ (e) Much less well  
☐ (f) Don't know

4. When you finish your education, considering your interests, abilities, what you want from a job, and how much further you plan to go in school, what type of work or occupation will you be most qualified to go into? Write what is on your mind, on the line below, even if you are not definite about it.

46

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5. If your dreams could come true, what type of work or occupation would you like to have most as a career. Write the type of work or occupation in the space provided.

47

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6. Now, considering the opportunities for jobs today, what work or occupation do you think you probably will be doing in the future? Write what is on your mind in the space provided even if you are not definite about it.

48

---



7. Who has helped you most so far in planning your occupational career? 49
- ☐ (a) My parents
  - ☐ (b) Other relatives or adults
  - ☐ (c) A teacher
  - ☐ (d) A principal or vice-principal
  - ☐ (e) A guidance counsellor in your school
  - ☐ (f) Another guidance counsellor from the university
  - ☐ (g) Friends
  - ☐ (h) Other
  - ☐ (i) No one helped me
  - ☐ (j) I have not yet thought about my occupational career
8. How sure are you about what you will do as a career? 50
- ☐ (a) Very sure
  - ☐ (b) Fairly sure
  - ☐ (c) Not too sure
  - ☐ (d) Not sure at all
  - ☐ (e) I have not thought much about my career yet
9. (Girls only - Boys: Mark space 'c' on answer sheet) 51  
Do you plan to work full-time after you finish your schooling?
- ☐ (a) Not at all
  - ☐ (b) Only before I am married
  - ☐ (c) Both before and after I am married
  - ☐ (d) Have not thought about it yet
  - ☐ (e)

THE FOLLOWING IS A LIST OF WORRIES THAT MANY PEOPLE HAVE WHEN THEY TRY TO FIND A JOB. INDICATE HOW WORRIED YOU ARE ABOUT EACH OF THEM.

10. The possibility of being turned down. 52
- ☐ (a) Quite worried
  - ☐ (b) A little bit worried
  - ☐ (c) Not at all worried
11. Not having enough education 53
- ☐ (a) Quite worried
  - ☐ (b) A little bit worried
  - ☐ (c) Not at all worried
12. My personality or appearance. 54
- ☐ (a) Quite worried
  - ☐ (b) A little bit worried
  - ☐ (c) Not at all worried



- |   |    |
|---|----|
| 13. Getting good references.  | 55 |
| ___ (a) Quite worried   |    |
| ___ (b) A little bit worried  |    |
| ___ (c) Not at all worried  |    |
| 14. The number of other people trying for the job.  | 56 |
| ___ (a) Quite worried   |    |
| ___ (b) A little bit worried  |    |
| ___ (c) Not at all worried  |    |
| 15. My lack of experience.  | 57 |
| ___ (a) Quite worried   |    |
| ___ (b) A little bit worried  |    |
| ___ (c) Not at all worried  |    |
| 16. Being alone without my parents.   | 58 |
| ___ (a) Quite worried   |    |
| ___ (b) A little bit worried  |    |
| ___ (c) Not at all worried  |    |
| 17. Getting a job I like.   | 59 |
| ___ (a) Quite worried   |    |
| ___ (b) A little bit worried  |    |
| ___ (c) Not at all worried  |    |
| 18. Having the right connections.   | 60 |
| ___ (a) Quite worried   |    |
| ___ (b) A little bit worried  |    |
| ___ (c) Not at all worried  |    |
| 19. Knowing where to look and what to do to find a job.   | 61 |
| ___ (a) Quite worried   |    |
| ___ (b) A little bit worried  |    |
| ___ (c) Not at all worried  |    |
| 20. Getting a job for which I have been trained.  | 62 |
| ___ (a) Quite worried   |    |
| ___ (b) A little bit worried  |    |
| ___ (c) Not at all worried  |    |
| 21. Where do you think you stand in your chance of getting a good job compared with the other students in your class? | 63 |
| ___ (a) Much better than average  |    |
| ___ (b) Better than average   |    |
| ___ (c) About average   |    |
| ___ (d) Below average   |    |
| ___ (e) Much below average  |    |



22. Do you think that a student who graduates from this school has a better, equal, or worse chance for a good job as students graduating from other high schools you have heard about in this province? 64
- ☐ (a) Much better
  - ☐ (b) A little better
  - ☐ (c) Equal
  - ☐ (d) A little worse
  - ☐ (e) Much worse
23. What do you think the chances are that the things you are learning now will be useful in one way or another in your future career? 65
- ☐ (a) Very good
  - ☐ (b) Fairly good
  - ☐ (c) Not too good
  - ☐ (d) Not good at all
  - ☐ (e) Don't know
24. How important do you think your grades or marks will be in getting the kind of job you want? 66
- ☐ (a) Very important
  - ☐ (b) Quite important
  - ☐ (c) Not very important
  - ☐ (d) Not important at all
  - ☐ (e) Don't know
25. Suppose you were offered the sort of job you had always wanted. Then you found out that your friends did not think you were suited for it. Do you think you would: 67
- ☐ (a) definitely take the job anyway.
  - ☐ (b) probably take the job anyway.
  - ☐ (c) probably not take the job.
  - ☐ (d) definitely not take the job.
26. Now, let's suppose your friends thought you should take this job, but your parents felt you were not suited for it. Do you think you would: 68
- ☐ (a) definitely take the job anyway
  - ☐ (b) probably take the job anyway
  - ☐ (c) probably not take the job
  - ☐ (d) definitely not take the job
27. Then let's suppose your parents thought you should take this job, but either your guidance counsellor, teacher, or principal felt you were not suited for it. Do you think you would: 69
- ☐ (a) definitely take the job anyway
  - ☐ (b) probably take the job anyway
  - ☐ (c) probably not take the job
  - ☐ (d) definitely not take the job





Registration Number \_\_\_\_\_ (To be supplied by counsellor) 1-4

Card Sequence # 5 5

There are a number of statements about career choice in this booklet. Career choice means the kind of job or work which you think you will probably be doing when you have finished all of your schooling.

If you agree or mostly agree with the statement, mark TRUE. If you disagree or mostly disagree with the statement, mark FALSE.

#### C. YOUR IDEAS ABOUT WORK AND THE FUTURE

1. Once you choose a job, you can't choose another one. 6  
☐ (a) True  
☐ (b) False
2. In order to choose a job, you need to know what kind of person you are. 7  
☐ (a) True  
☐ (b) False
3. I plan to follow the line of work my parents suggest. 8  
☐ (a) True  
☐ (b) False
4. I guess everybody has to go to work sooner or later, but I don't look forward to it. 9  
☐ (a) True  
☐ (b) False
5. A person can do any kind of work he wants as long as he tries hard. 10  
☐ (a) True  
☐ (b) False
6. I'm not going to worry about choosing an occupation until I'm out of school. 11  
☐ (a) True  
☐ (b) False
7. Your job is important because it determines how much you can earn. 12  
☐ (a) True  
☐ (b) False



- |   |    |
|---|----|
| 8. Work is worthwhile mainly because it lets you buy the things you want.                                 | 13 |
| ___ (a) True  |    |
| ___ (b) False   |    |
| 9. The greatest appeal of a job to me is the opportunity it provides for getting ahead.                   | 14 |
| ___ (a) True  |    |
| ___ (b) False   |    |
| 10. I often daydream about what I want to be, but I really haven't chosen a line of work yet.             | 15 |
| ___ (a) True  |    |
| ___ (b) False   |    |
| 11. Knowing what you are good at is more important than knowing what you like in choosing an occupation.  | 16 |
| ___ (a) True  |    |
| ___ (b) False   |    |
| 12. Your parents probably know better than anybody else which occupation you should enter.                | 17 |
| ___ (a) True  |    |
| ___ (b) False   |    |
| 13. If I can just help others in my work, I'll be happy.  | 18 |
| ___ (a) True  |    |
| ___ (b) False   |    |
| 14. Work is dull and unpleasant.  | 19 |
| ___ (a) True  |    |
| ___ (b) False   |    |
| 15. Everyone seems to tell me something different; as a result I don't know which kind of work to choose. | 20 |
| ___ (a) True  |    |
| ___ (b) False   |    |
| 16. I don't know how to go about getting into the kind of work I want to do.                              | 21 |
| ___ (a) True  |    |
| ___ (b) False   |    |
| 17. There is no point deciding on a job when the future is so uncertain.                                  | 22 |
| ___ (a) True  |    |
| ___ (b) False   |    |



- |   |    |
|---|----|
| 18. I spend a lot of time wishing I could do work I know I can never do.  | 23 |
| ___ (a) True  |    |
| ___ (b) False   |    |
| 19. I don't know what courses I should take in school.  | 24 |
| ___ (a) True  |    |
| ___ (b) False   |    |
| 20. It's probably just as easy to be successful in one occupation as it is in another.                              | 25 |
| ___ (a) True  |    |
| ___ (b) False   |    |
| 21. By the time you are 15, you should have your mind pretty well made up about the occupation you intend to enter. | 26 |
| ___ (a) True  |    |
| ___ (b) False   |    |
| 22. There are so many things to consider in choosing an occupation, it is hard to make a decision.                  | 27 |
| ___ (a) True  |    |
| ___ (b) False   |    |
| 23. I seldom think about the job I want to enter.   | 28 |
| ___ (a) True  |    |
| ___ (b) False   |    |
| 24. It doesn't matter which job you choose as long as it pays well.   | 29 |
| ___ (a) True  |    |
| ___ (b) False   |    |
| 25. You can't go very far wrong by following your parents' advice about which job to choose.                        | 30 |
| ___ (a) True  |    |
| ___ (b) False   |    |
| 26. Working is much like going to school.   | 31 |
| ___ (a) True  |    |
| ___ (b) False   |    |
| 27. I am having difficulty in preparing myself for the work I want to do.   | 32 |
| ___ (a) True  |    |
| ___ (b) False   |    |
| 28. I know very little about the requirements of jobs.  | 33 |
| ___ (a) True  |    |
| ___ (b) False   |    |



- |     |  |    |
|-----|--|----|
| 29. | The job I choose has to give me plenty of freedom to do what I want.   | 34 |
|     | <input type="checkbox"/> (a) True  |    |
|     | <input type="checkbox"/> (b) False   |    |
| 30. | The best thing to do is to try out several jobs, and then choose the one you like best.  | 35 |
|     | <input type="checkbox"/> (a) True  |    |
|     | <input type="checkbox"/> (b) False   |    |
| 31. | There is only one occupation for each person.  | 36 |
|     | <input type="checkbox"/> (a) True  |    |
|     | <input type="checkbox"/> (b) False   |    |
| 32. | Whether you are interested in a particular kind of work is not as important as whether you can do it.                                  | 37 |
|     | <input type="checkbox"/> (a) True  |    |
|     | <input type="checkbox"/> (b) False   |    |
| 33. | I can't understand how some people can be so certain about what they want to do.   | 38 |
|     | <input type="checkbox"/> (a) True  |    |
|     | <input type="checkbox"/> (b) False   |    |
| 34. | As long as I can remember, I've known what kind of work I want to do.  | 39 |
|     | <input type="checkbox"/> (a) True  |    |
|     | <input type="checkbox"/> (b) False   |    |
| 35. | I want to really accomplish something in my work -- to make a great discovery or earn a lot of money or help a great number of people. | 40 |
|     | <input type="checkbox"/> (a) True  |    |
|     | <input type="checkbox"/> (b) False   |    |
| 36. | You get into an occupation mostly by chance.   | 41 |
|     | <input type="checkbox"/> (a) True  |    |
|     | <input type="checkbox"/> (b) False   |    |
| 37. | It's who you know, not what you know, that's important in a job.   | 42 |
|     | <input type="checkbox"/> (a) True  |    |
|     | <input type="checkbox"/> (b) False   |    |
| 38. | When it comes to choosing a job, I'll make up my own mind.   | 43 |
|     | <input type="checkbox"/> (a) True  |    |
|     | <input type="checkbox"/> (b) False   |    |





- |   |    |
|---|----|
| 39. You should choose an occupation which gives you a chance to help others.                                    | 44 |
| ___ (a) True  |    |
| ___ (b) False   |    |
| 40. When I am trying to study, I often find myself daydreaming about what it will be like when I start working. | 45 |
| ___ (a) True  |    |
| ___ (b) False   |    |
| 41. I have little or no idea of what working will be like.  | 46 |
| ___ (a) True  |    |
| ___ (b) False   |    |
| 42. You should choose an occupation, then plan how to enter it.   | 47 |
| ___ (a) True  |    |
| ___ (b) False   |    |
| 43. I really can't find any work that has much appeal to me.  | 48 |
| ___ (a) True  |    |
| ___ (b) False   |    |
| 44. You should choose a job in which you can someday become famous.   | 49 |
| ___ (a) True  |    |
| ___ (b) False   |    |
| 45. If you have some doubts about what you want to do, ask your parents or friends for advice and suggestions.  | 50 |
| ___ (a) True  |    |
| ___ (b) False   |    |
| 46. You should choose a job which allows you to do what you believe in.   | 51 |
| ___ (a) True  |    |
| ___ (b) False   |    |
| 47. The most important part of work is the pleasure which comes from doing it.                                  | 52 |
| ___ (a) True  |    |
| ___ (b) False   |    |
| 48. I keep changing my occupational choice.   | 53 |
| ___ (a) True  |    |
| ___ (b) False   |    |



- |  |       |
|--|-------|
| <p>49. As far as choosing an occupation is concerned, something will come along sooner or later.</p> <p>___ (a) True</p> <p>___ (b) False</p>          | 54    |
| <p>50. I am not going to worry about choosing a job since you don't have anything to say about it anyway.</p> <p>___ (a) True</p> <p>___ (b) False</p> | 55    |
| <p>V.M.R.S. (To be supplied by Counsellor) _____</p>   | 56-57 |
| <p>V.M.P.S. (To be supplied by Counsellor) _____</p>   | 58-59 |

#### D. YOUR ACTIVITIES IN SCHOOL

- |   |    |
|---|----|
| <p>1. If you had worked harder last year, do you think you could have improved your marks or grades?</p> <p>___ (a) Yes, a great deal</p> <p>___ (b) Yes, a little bit</p> <p>___ (c) No, it would not have made any difference</p> <p>___ (d) Don't know</p>   | 60 |
| <p>2. Where do you think you stand in intelligence in relation to the students in your class?</p> <p>___ (a) Definitely above average</p> <p>___ (b) Slightly above average</p> <p>___ (c) Just above average</p> <p>___ (d) Slightly below average</p> <p>___ (e) Definitely below average</p>   | 61 |
| <p>3. How accurately do your school grades or marks reflect your real intelligence?</p> <p>___ (a) My marks are much lower than my real intelligence</p> <p>___ (b) My marks are slightly lower</p> <p>___ (c) My marks accurately reflect my real intelligence</p> <p>___ (d) My marks are slightly higher</p> <p>___ (e) My marks are much higher</p> <p>___ (f) I don't know</p> | 62 |
| <p>4. Even with a good education, a person like me will have a tough time getting the job he wants.</p> <p>___ (a) Strongly agree</p> <p>___ (b) Agree</p> <p>___ (c) Disagree</p> <p>___ (d) Strongly disagree</p>   | 63 |
| <p>5. Do you agree or disagree with this statement: "If I could change, I would be someone different from myself."</p> <p>___ (a) Agree</p> <p>___ (b) Disagree</p>   | 64 |



## E. HELP WANTED CHECK LIST

The list below covers things with which students sometimes would like help. Indicate with a tick ☒ those with which you still require help.

- |   |    |
|---|----|
| 1. Improving my study skills.                             | 65 |
| <input type="checkbox"/> Yes                              |    |
| 2. Choosing a course.                                     | 66 |
| <input type="checkbox"/> Yes                              |    |
| 3. Discussing personal things that are concerning me.     | 67 |
| <input type="checkbox"/> Yes                              |    |
| 4. Making career plans.                                   | 68 |
| <input type="checkbox"/> Yes                              |    |
| 5. Obtaining money to continue my education after school. | 69 |
| <input type="checkbox"/> Yes                              |    |
| 6. Discussing a health problem that is concerning you.    | 70 |
| <input type="checkbox"/> Yes                              |    |

## F. GENERAL EVALUATION

In an effort to improve our services, we at the university would like your comments concerning the Vocational Counselling Project. We urge you to be frank in your answers to the following questions.

- |   |    |
|---|----|
| 1. Was the career exploration project an aid or an obstacle in planning your vocational future (check only one of the following). | 71 |
| <i>Past</i>   |    |
| <u>46.2</u> (a) Definitely helpful  |    |
| <u>38.5</u> (b) Somewhat helpful  |    |
| <u>2.7</u> (c) Little aid   |    |
| <u>0</u> (d) Slight obstacle  |    |
| <u>2.6</u> (e) Somewhat of an obstacle  |    |
| <u>     </u> (f) Definitely an obstacle   |    |
| <u>5.1</u> (g) No opinion   |    |



2. How would you rate this career exploration project in comparison to other procedures to which you have experienced? (Check only one) 72
- 22.1 (a) Definitely superior  
28.9 (b) Somewhat superior  
28.1 (c) Slightly superior  
5.1 (d) Slightly inferior  
     (e) Somewhat inferior  
     (f) Definitely inferior  
18.9 (g) No opinion
3. As a result of this career exploration project are you considering more or fewer possible occupational choices than before? (Check only one). 73
- 20.5 (a) Definitely more  
23.1 (b) Somewhat more  
23.1 (c) Slightly more  
5.1 (d) Slightly fewer  
2.7 (e) Somewhat fewer  
2.6 (f) Definitely fewer  
17.9 (g) No opinion
4. What part of the total project helped you the most? 74
- 10.3 (a) Completing the questionnaires  
17.9 (b) Taking the tests  
10.3 (c) Group discussions about career planning.  
44.6 (d) An opportunity to sit down with a counsellor and explore test and other information  
15.4 (e) No opinion
5. As a result of this project, how do you now feel about your future career plans? 75
- 20.5 (a) Definitely decided  
28.9 (b) Somewhat decided  
20.5 (c) Slightly decided  
2.6 (d) Slightly undecided  
16.3 (e) Somewhat undecided  
0 (f) Definitely undecided  
10.3 (g) No opinion
6. In the future do you think this project should be repeated? 76
- 64.1 (a) Definitely yes  
20.5 (b) Somewhat yes  
5.1 (c) Slightly yes  
5.1 (d) Slightly no  
     (e) Somewhat no  
5.1 (f) Definitely no  
     (g) No opinion





7. As a result of this career exploration project have you made a decision concerning your occupational future? 77
- 20.5 (a) Definitely decided what I want to do  
21.2 (b) Much clearer, but have not decided exactly  
15.6 (c) Still undecided  
6.1 (d) A little confused  
2.6 (e) Very confused  
2.6 (f) Project did not effect me at all  
2.6 (g) Need more information  
0 (h) No opinion
8. How would you rate the services provided by your counsellor in the individual interviews? 78
- 53.8 (a) Very helpful  
28.6 (b) Somewhat helpful  
7.7 (c) Slightly helpful  
2.6 (d) Slightly useless  
— (e) Somewhat useless  
— (f) Very useless  
10.3 (g) Undecided



In an effort to improve our services, we at the university would like your written comments concerning the vocation counselling project. We urge you to be frank in your answers to the following questions 9, 10, and 11.

9. What aspects of the project did you find particularly useful to you?

10. What aspects of the project did you find not too useful to you?

11. For next year, what suggestions would you make in order to improve the services provided? —

Thank you







**B30186**